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MODELISMO

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Model Laboratory

JUNKERS JU 88 A-4, GERBINI (SICILY) 1942

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Junkers Ju 88 A-4, Gerbini (Sicily) 1942

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Text by: Marta Ramírez Gómez
Picture Credits: The author and Fernando Cañellas
Cyber Hobby, 1/48

MATERIALS EMPLOYED

Kit:

- Cyber Hobby, ref. 5565 Ju 88A-4 Schnell Bomber.

Photo-Etched:

- Eduard, ref. 48498 Ju 88A-4 Exterior.

Resin Kit:

- Aires, rtef. 4052 Junkers Ju 88A-4 cockpit set.

- Aires, ref. 4063 German 7,92 gun MG 81.

- Quickboost, ref. 48218 Junkers Ju 88A-4 Exhaust.

- Quickboost, ref. 48265 Junkers Ju 88A-4 VS propeller.

- True Detail, ref. 48029 Ju 88A-4/G6 wheel set.

Masking:

- Eduard, ref. EX042 Ju 88A-4 Mask.

COLOR CHART

Cockpit

Base: dark grey XF24

Lights: neutral grey XF53

Shadows: NATO black XF69

Landing gear:

Base: RLM grey XF22

Lights: RLM grey XF22 (50%)
+ Buff XF57 (50%)

Shadows: Black green XF27

Dry-brush: Ligth green 120 (Humbrol enamel)

Upper camuoflage

RLM 70:

Base: Black green XF27

Lights: Black green XF27 (60%)

+ Dark yellow XF60 (40%)

RLM 71:

Base: J.N. green XF11 (70%) + Dark yellow XF60 (25)

+ Flat brown XF10 (5%)

Lights: base (60%)

+ Desert yellow XF59 (40%)

RLM 76:

Base: Ligth blue XF23 (60%)

+ Light grey XF66 (20%)

+ Flat white XF2 (20%)

Lights: base (60%) +

Flat white XF2 (40%)

RLM 79:

Base: Flat yellow XF3 (60%)

+ Dark yellow XF60 (30%)

+ Flat red XF7 (10%)

Lights: base (60%) + Buff XF57 (40%)

Lower camuoflage

RLM 76:

Base: Ligth blue XF23 (60%)

+ Light grey XF66 (20%)

+ Flat white XF2 (20%)

Lights: base (60%)

+ Flat white XF2 (40%)

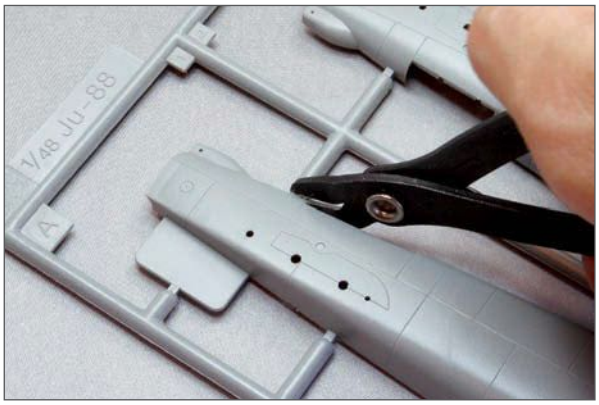
Considering the fact that 16000 units with tens of variants were built of this plane; its basic structure never suffered radical changes, which proves the overall quality of the original design. However, at first the number of different uses this plane was eventually put to was never a factor taken into consideration, because the German Air Ministry (RLM) was never too confident with the success of this project, and commanded instead a fast bombardier able to carry a war load of 1800kg and to be able to reach a speed of 500km/h... almost the same speed that the newly born Hawker Hurricane plane made. Three projects were proposed: The Henschel Hs 127, the Messerschmitt Bf 162 and the Ju 88. The first two were rejected for a number of reasons, and the Junkers followed through. Its first prototype the Ju 88 V1, crashed when performing a high speed test, but nevertheless having proven its correct design. Later prototypes got motor adjustments, cabin, weapons, etc. until the right configuration was found.

In 1939 the Ju 88 was finally revealed to the world, after having kept it a secret to the British Secret Services for three years. Ernst Zindel was the engineer who took all the credit for it, but two American engineers' expert in the field of paneling worked on the project as well.

The plane soon got into production, and its components were manufactured separately in a vast number of factories in Germany, Czechoslovakia and France. Production speed increased as well.

The original model suffered later modifications in order to keep updated in the demanding field of aerial warfare.

From the initial run, the most relevant one was the Ju 88A, with small variations all



When separating plastic from the sprues it is always advisable to use a cutting tool and making this cut as far away as possible from the actual piece in order to avoid damaging it, scratching it or even break it.

With a very sharp razor we remove excess plastic without exerting too much pressure, bearing in mind that it is preferable to do it again until clean. Try not to hit the piece in order to avoid leaving marks.

The piece is left clean with medium grain sandpaper until you get an even surface. Just like before it is desirable to do it slowly without exerting too much pressure.

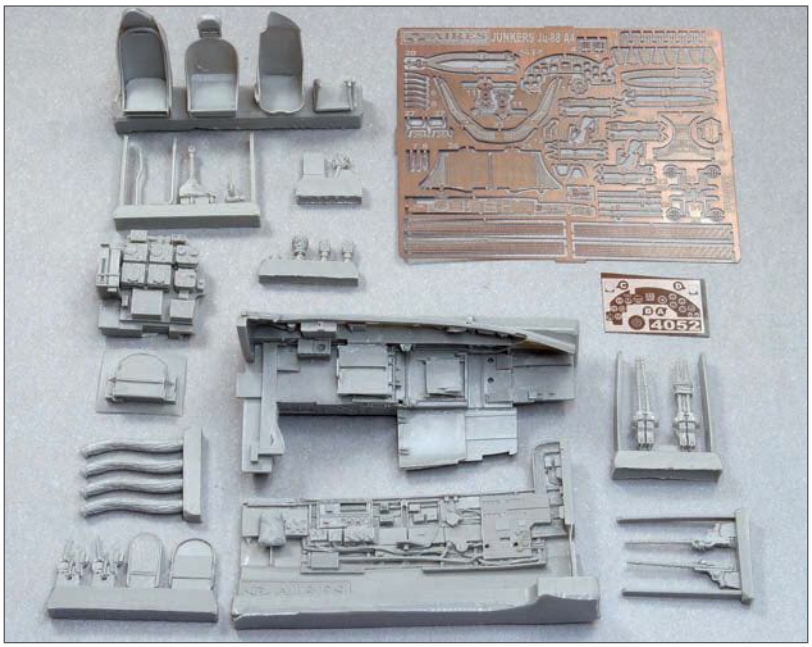
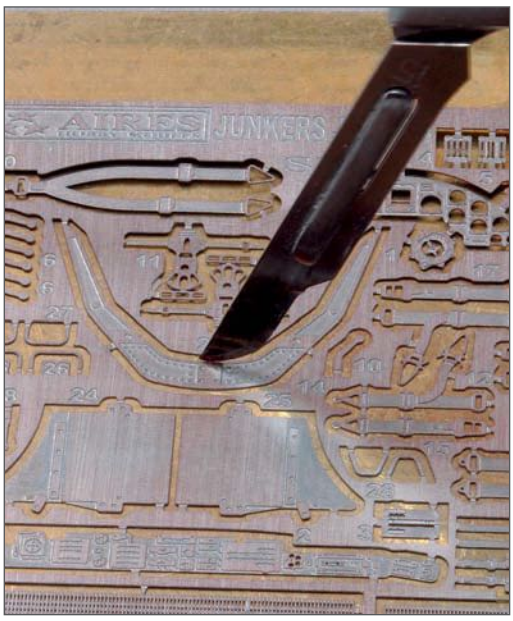


Photo etched pieces are extremely delicate, so handling these on a hard surface will prevent unwanted dents and bends. These should be cut with a brand new knife and if the knife has a curved edge, so much better. These should be cut in several careful passes of the knife.

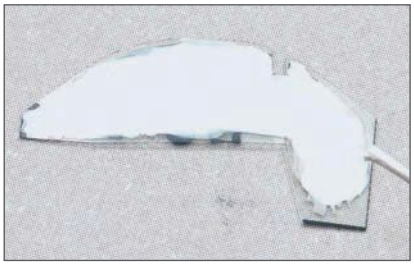
This Aires reference is an excellent product, both its resin pieces and photo etched parts; everything fits in flawlessly. The remainder of the kit is pretty much the same; however the instruction sheet isn't too clear.



The best tool to cut away the resin parts is a small saw with a sharp edge. Once again, brute force isn't recommended, because resin is way too fragile. Hold the bulk of the resin pieces when cutting a single piece in order to avoid damage when separating the pieces.

When a photo etched piece is used to convey a piece which is not flat -seat belts for instance-, you have to give them some shape in order to make it appear realistic. In this case these should look loose and spread. It is therefore necessary to use a curved tool without angles, gluing these with cyanoacrylate gel glue.

Nowadays most brands supply the instrument panels of model kit vehicles in photo etched sheets and acetate sheets with dials in black. The trend however is to manufacture now the pieces in color as well.



The acetate sheet is painted white in the back, and when you turn it around the dials will be as a result enhanced.

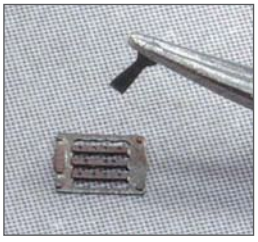
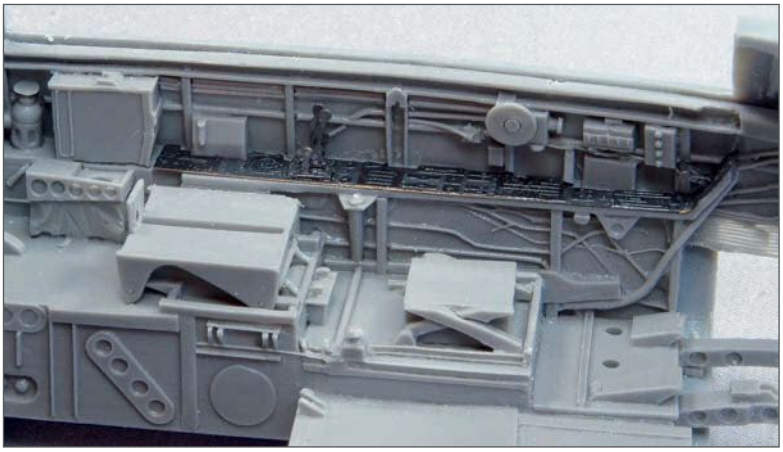
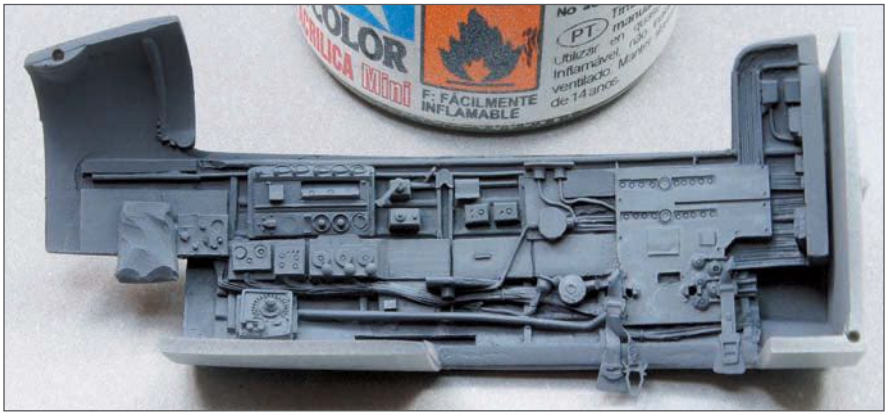


Photo etched pieces of a smaller size are often troublesome; the solution is using a good brand new pair of tweezers. The piece should be held as far as possible from the area where glue is to be placed. If we don't do this we run the risk of gluing the piece to the tool and not where we want.

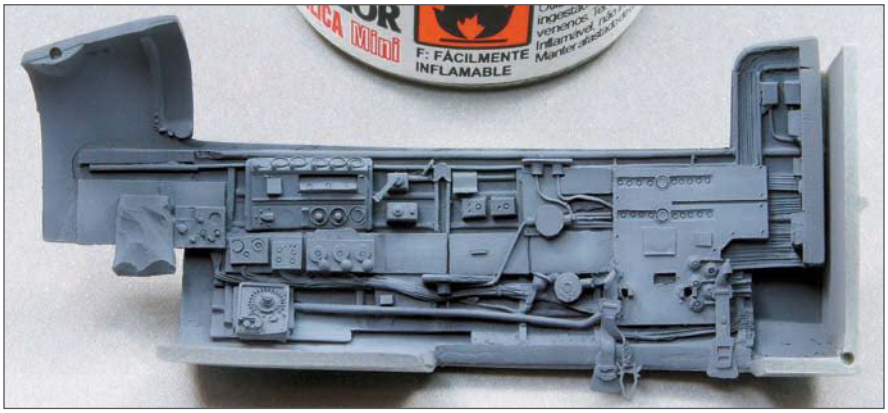
Because of the small size of some photo etched pieces and the accessibility problems that sometimes we face it is preferable to assemble some photo etched pieces first before we undertake the general assembly of the kit. This is the case with levers. The amount of cyanoacrylate glue used should be minimal, but enough to grant a solid fit.



When analyzing the Aires kit carefully, we can see many details which are absent; like the cables for instance. Resin pieces are often better scaled than their styrene counterparts. It is difficult to see any resin pieces out of scale.

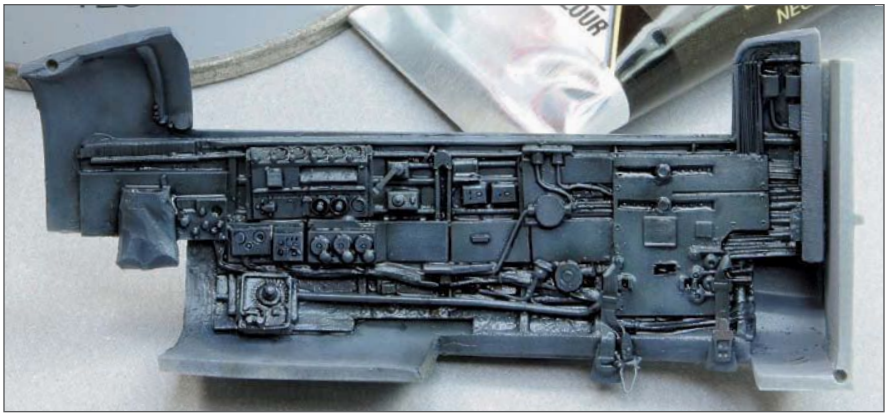


The base has three thin paint coats; this will give us a good priming that will allow us later on to work at ease.



Using a lighter shade of gray we get some highlights for the flat areas. The more highlights we get, the better overall finish we'll get, so it is really important to walk that extra mile.

We airbrush an almost black shade of grey for the cockpit, using well diluted paint to avoid excessive contrast. Diluted paint also contributes to gaining some precision when using our airbrush kit.



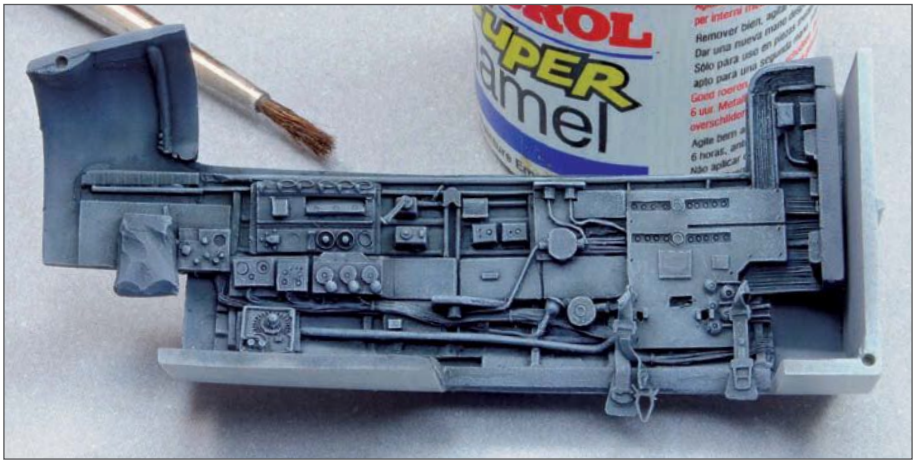
Using black oil paint and Humbrol enamel thinner we execute an intense wash applied specially on all crevices and sunken corners. If necessary we'll repeat the process until we mark the volumes of the piece well enough.

the way down to the A-17, with improved motors and overall operational capabilities. From the series Ju 88A some 7000 machines were manufactured. In 1940 the version Ju-88A-4 with an outstanding wingspan appeared with Jumo 211J motors.

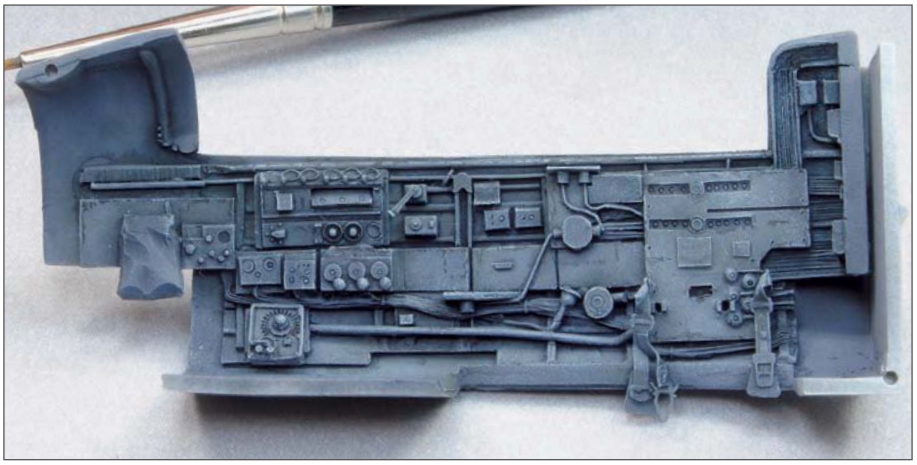
This plane was used widely on all fronts, fulfilling all expectations. It took part on the invasion of France, Belgium and the Netherlands; it sunk several British vessels during the evacuation of Dunkirk, in spite of the fact that when these planes were flying above this port the anti aerial defense system brought down two of them; it took part on the nocturnal London air raids; it was deeply involved both in Greece, Crete and Northern Africa when the conflict moved to the Mediterranean scenario; it played a capital role acting as a fighter and attacking the Soviet land forces.

However in 1943, the aerial superiority of the allies took some of the efficiency out of the operations during the daytime, so this aircraft was used almost exclusively to attack the allied forces in nocturnal raids. The Ju 88's performed air raids against the land allied forces, landing in highways and hiding behind bushes when necessary. When the war ended this aircraft was retired from active service.

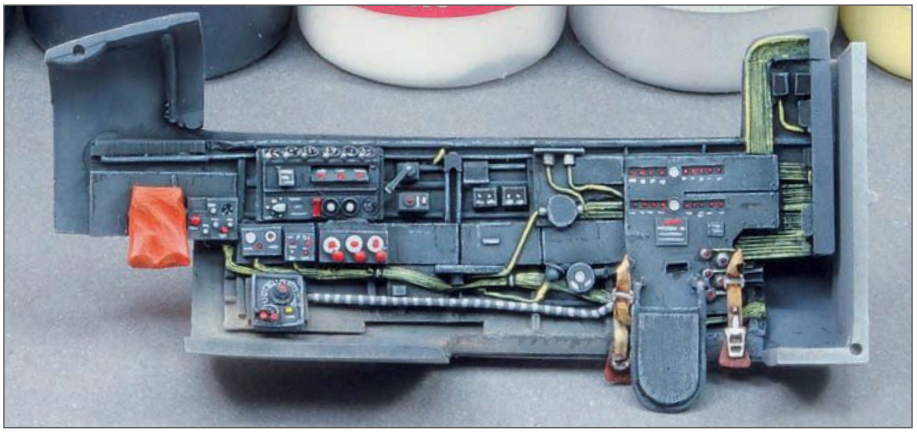
We have portrayed here a Ju 88 A-4 from the Stab II. Gruppe/Kampsgeschwader 77 (Officer staff from the 2nd group of the bombardier wing 77-), when this unit was doing service in the Italian airdrome of Gerbini Sicily in the province of Catania, on October 1942. This is specifically the aircraft commanded by Hauptmann (Captain) Heinrich Paepcke, Gruppenkommandeur (Group Commander) for the II./KG77 from 1941 to 1942 and one of the most awarded pilots during WWII.



The dry brush technique can still be of good use. When we're doing it we further enhance the volume and three dimensionality of the piece. You should be careful about two things: First make sure oil paint is thoroughly dry because otherwise we would "drag" it. Then make sure you do it smoothly because otherwise you may harm some of the smaller pieces.

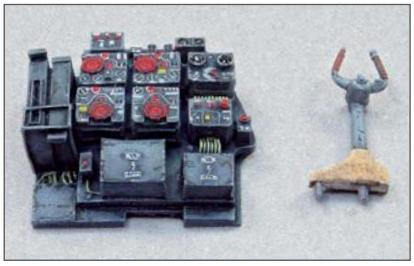


Every paint chip on the inside of the cockpit has been painted with mat black paint, and has been applied with a thin brush. The most important thing here is not to overdo these in size or amount.



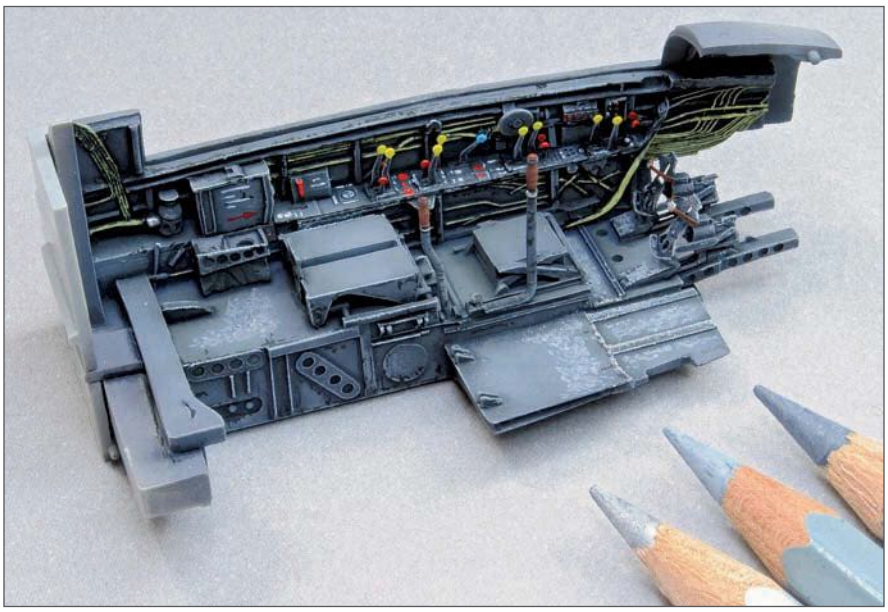
With the colors NAC-39 Amarillo básico, NAC-02 Negro Mate, NAC-01 Blanco mate (Andrea color) y 70869 Gris basalto, 70989 Gris cielo, 70949 Amarillo claro, 70947 Bermellón (Vallejo Model Color) we have enough to paint the entire cockpit, because contrary to popular belief, you don't need that many different color tones.

Seatbelts are also hand painted with a light sand colored hue, in this case khaki which will be treated later on with a mixture of black oil paint and burnt umber. Once dry, we use base color to obtain highlights. The protective padding is painted to appear like leather, and the buckles are painted in an aluminum color.

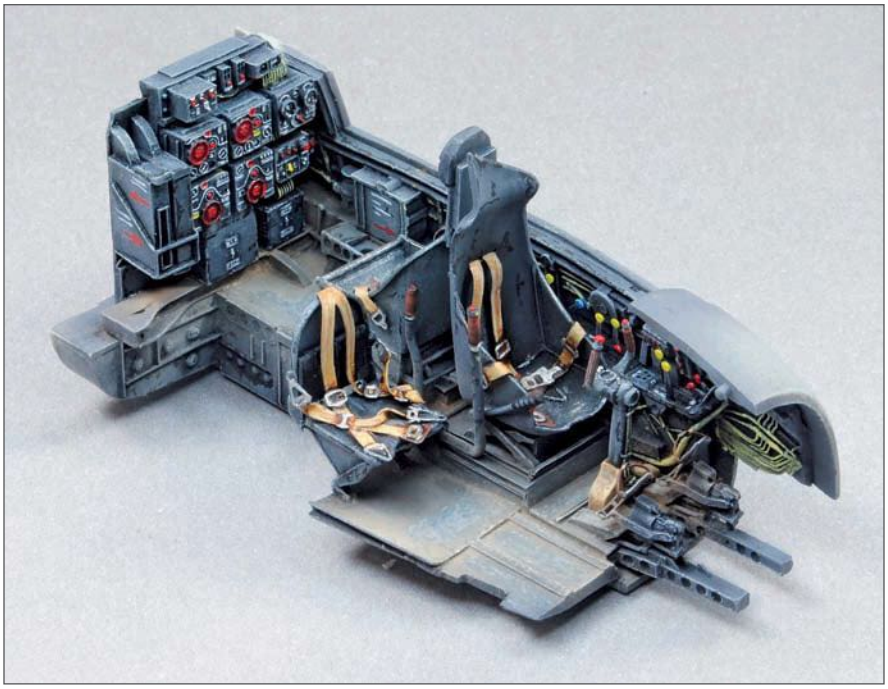


The radio equipment is reproduced in great detail, this makes painting particularly painstaking. A good way to proceed will be to dip your brush sparsely; tip it to one side in order to avoid staining the areas that do not stand out.

The instrument panel has been painted with the exact same techniques used to paint the remainder of the cockpit. In order to recreate the glassy look of the dials in the panel, a drop of ceramic varnish has been applied on each dial.

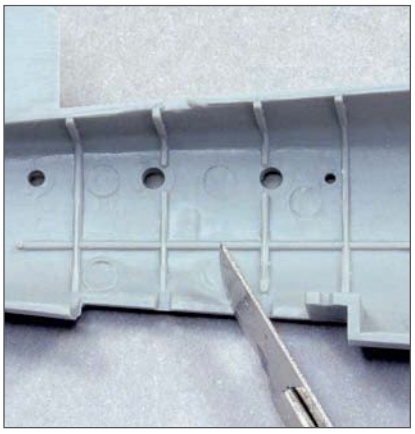


When doing paint chips, water color pencils do have a slight edge over acrylic paint, because these can be erased with a brush soaked in water. The only precaution to bear in mind is that these pencils should be sharp enough in order to get the thinnest lines possible.



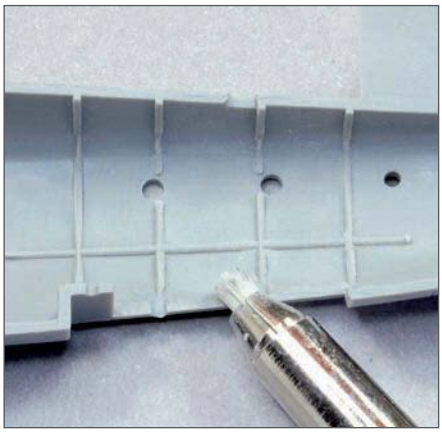
The final weathering effect on the cockpit was to simulate accumulated dirt; especially on the ground and some fairly inaccessible corners. Obviously, crews and mechanics bring some dirt on their boots, tools and other pieces of equipment. When choosing color pigments you have to bear in mind the scenario where the aircraft operated.

Fitting the pieces that make up the cockpit was very precise. You basically end up with a receptacle that is pretty visible from the outside.

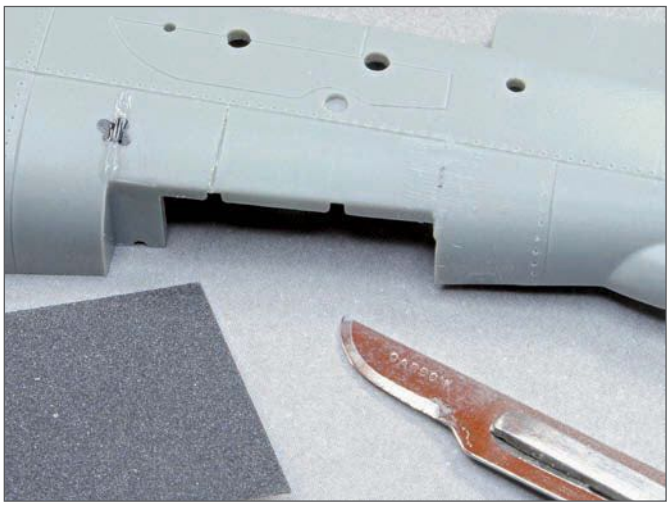


In order to eradicate the circular ejector markings, these have first been scraped with a circular knife being careful not to spoil the molded details of the styrene piece.

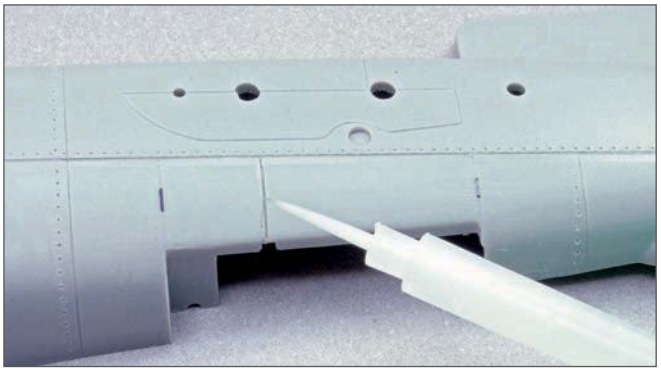
The issue with knifes is that these can scratch styrene easily. In order to avoid this you can use a fiberglass grater. You have to be careful with this tool because it's very easy to cut yourself with it.



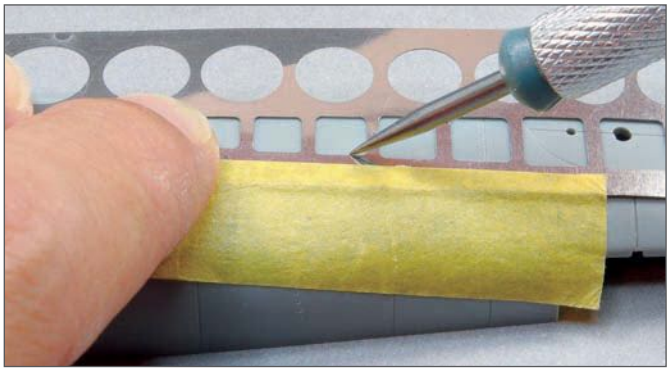
When we have an area where several panels merge together and we should cut the area out, the best thing to do would be to trace with a marker the panel lines that we want to preserve in order to avoid mistakes later on.



First with a knife and then with sandpaper and water we remove excess cyanoacrylate glue used to cover up the unwanted panel lines.



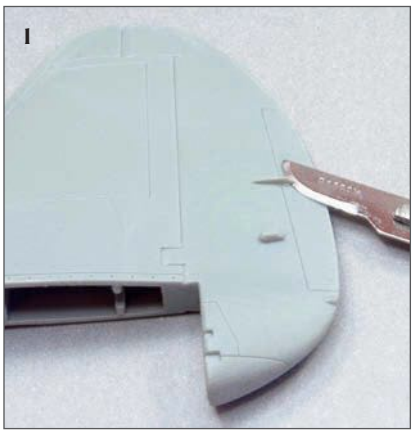
After having carved the new panel lines with our scriber tool, we remove excess plastic remains with a small amount of Tamiya's Extra Thin Glue. We try to follow the lines as neatly as possible.

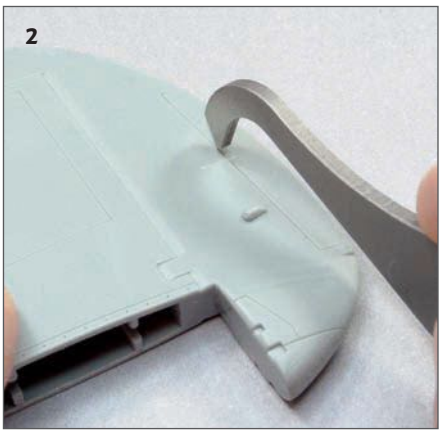


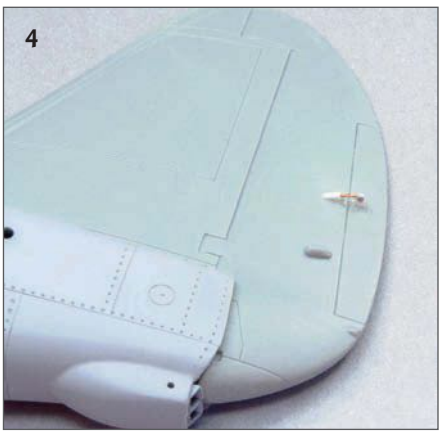
Many brands offer references to carve registers. The best way to do it is by fixing these to the kit with Tamiya masking tape to hold it still. We'll draw the lines carefully many times over, trying not to press too hard.

Assembling the Fuselage

1. In order to glue together the two pieces that form the fuselage, these pieces were test fitted together and then we applied Tamiya's extra liquid glued on the seams.
2. A small amount of cyanoacrylate glue has been placed along the seams, trying to be as neat as possible. This kind of glue strengthens the ensemble and acts like putty to cover up the seam.
3. In order to remove excess cyanoacrylate glue in a fast way a curved knife could be used to gently scrape it. The knife should be brand new in order to avoid scratching the styrene surface.
4. Sandpaper and water are now used to even out the seam. It is convenient to use first sandpaper of a 400 density and then use a 600.







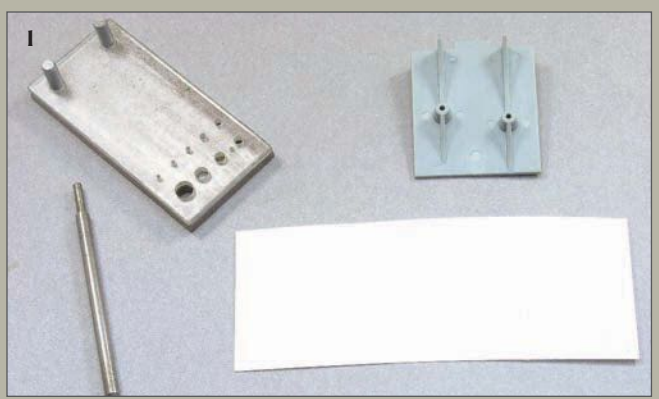
1. Moveable parts have to be replaced, because those that come with the kit are sculpted in a single solid block. These parts are removed with a sharp knife.

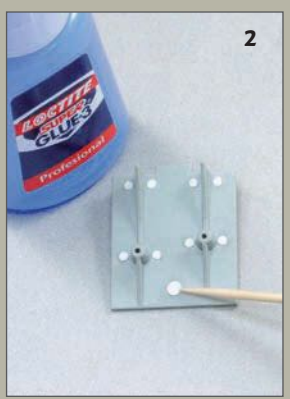
2. It is recommendable to carve well the separation between moveable parts because in model kits these are carved lightly and it looks like a single panel and not two separate pieces joined together with a hinge.

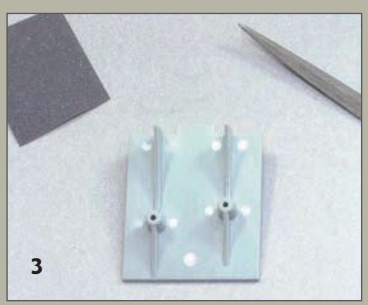
3. The finished piece before the moveable piece is fixed in place. It is best to work on each individual piece before these are fitted to the fuselage. This way it's easier to handle and you will avoid damaging the rest.

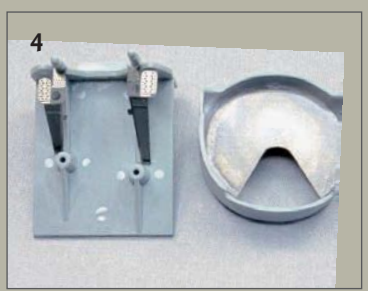
4. The moveable piece has been made with a sheet of Evergreen plastic and copper wire taken from an electric wire. Screws have been obtained by cutting a sheet of tin with a hole puncher.

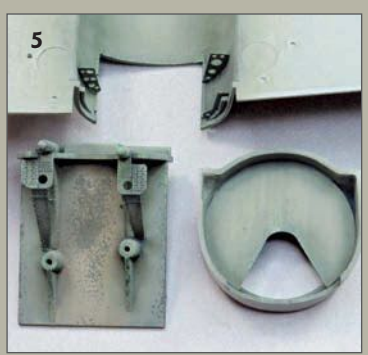
Cleaning Mold Residue











1. We've already seen how to clean the mold marks when these aren't too deep. When we have a "pit" it is useless to scratch, so we'll use some Evergreen sheet and a hole puncher.

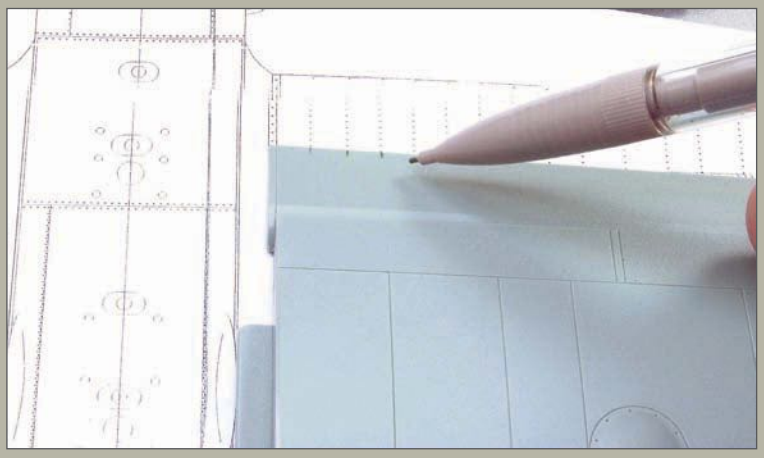
2. We obtain little circlets of the size of our mold "pits" and glue these with generous amounts of cyanoacrylate glue. It is crucial to let glue dry up thoroughly.

3. First, we sand away the greater part of the leftover glue and plastic with a small file, and then we work with sandpaper and water.

4. The landing gear pits have been finished up with the photo etched pieces, closely following the manufacturer's (Eduard) instructions. The only pieces that have any trouble fitting are the small panels that divide the motors' compartment. These panels are somewhat smaller than they ought to be.

5. In terms of weathering, painting here should pretty much follow what has been done on the rest of the kit. In order to achieve this you have to do the same to every area. We're dealing here with small pieces, so paint chips have been done with a sponge.

New Paneling Lines

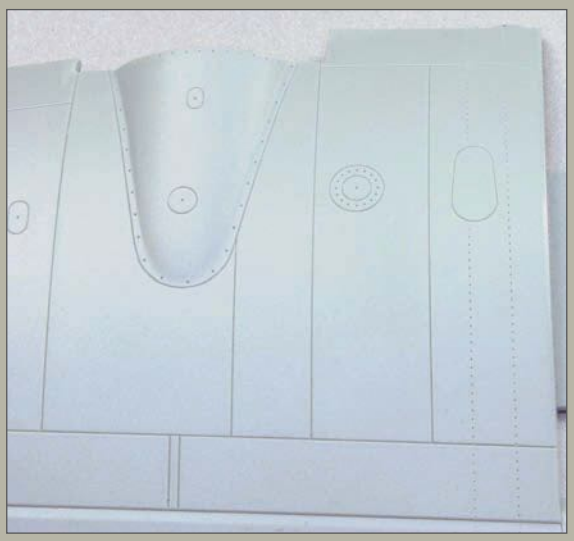


The most important thing when recreating the panels of an airplane is to obtain good blueprints of the aircraft. Once we have these, we transpose what we have, taking the necessary measurements and marking these with a pencil.

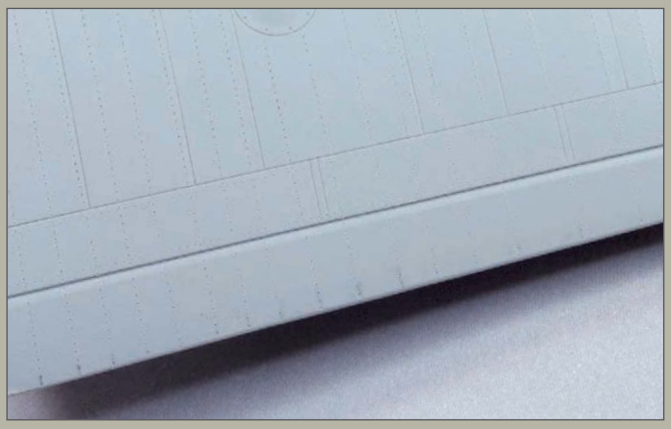
I've tested a fair amount of riveting devices, and I should say that the Rosie Riveter products are the ones with the best results in my opinion. This brand manufactures a set of five riveters that cover pretty much whatever we need have at whatever scale.

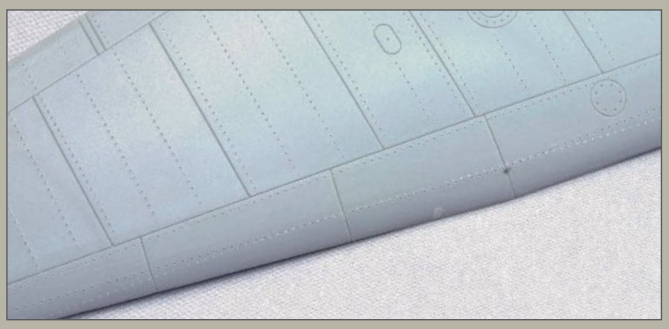
Dymo tape gives us the necessary support to get a straight line of rivets. This product has several advantages: first its adhesive fixes it well in place, and secondly this is a rigid plastic, so it makes it hard for the tool to stray out of the way.

Every time a new line is made, it is advisable to check if the previous line has been carved correctly, because any mistake, for example a slight sloping of the line will transfer the mistake to the following lines you'll work on.



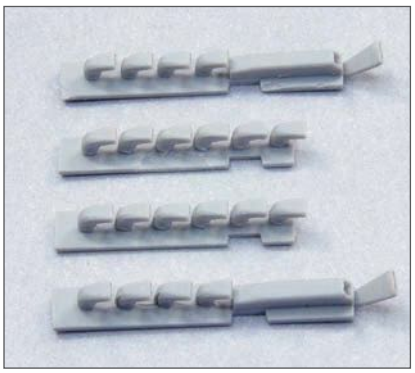
No matter how careful we are when we carve rivets, panels and other markings; it is likely that some may not come out right. The way to fix this would be to fill the carving with cyanoacrylate glue, let it dry sand it away and carve again.





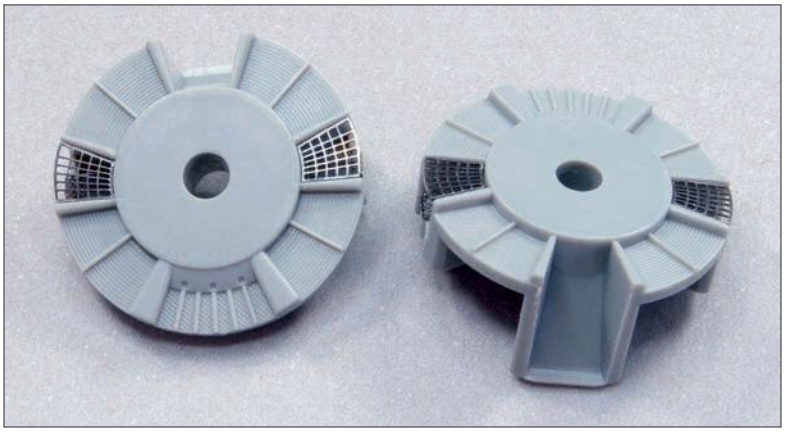
The wing finished with all its rivets and panels. Everything has been carved before gluing the pieces together, because when you're carving the pressure you exert can harm or tear apart some pieces or any given item.

Something that may be a little odd to think about is the fact that when you're doing the rivet lines on the Ju 88 the majority of these are distributed longitudinally; there are very few of these lines across. The few of these in existence are generally very close to the panel lines.



The resin Quickboost exhausts are very fragile, so they should be cut from the sprues very carefully. These pieces however fit perfectly.

The three dials in the motor are included in the Eduard reference, but the piece is somewhat smaller than the one on the kit. The cavity for it has therefore been filled with cyanoacrylate glue and sanded when dry.

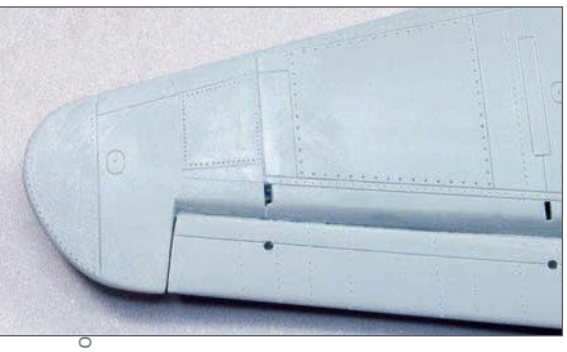


One area that really improves with the photo etched sheet is the motor grille, because in the kit is in some cases solid or altogether missing.

The landing gear had three covers. Two of these –those closer to the landing gear- were always open when the landing gear was out. However the third one was only opened when the mechanism to open it was manually activated when maintenance was due.

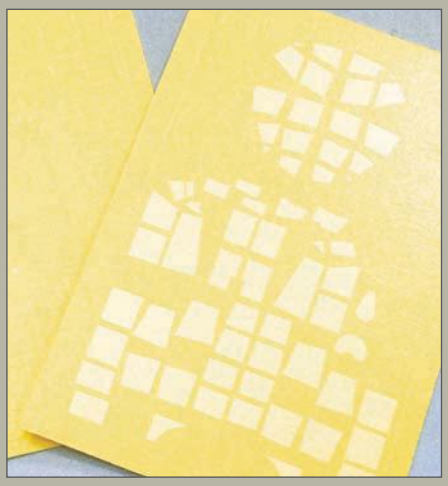
The motor's shaft is formed with two pieces. You have to be particularly careful when you are covering its seams, because it will be later on fully visible once assembled.

When you have to put some putty on a large piece, some panels, rivets or markings may end up being covered up. In order to fix this you'll have to wait until putty dries up, sand the surface thoroughly and then use the proper tool to carve the lost details.



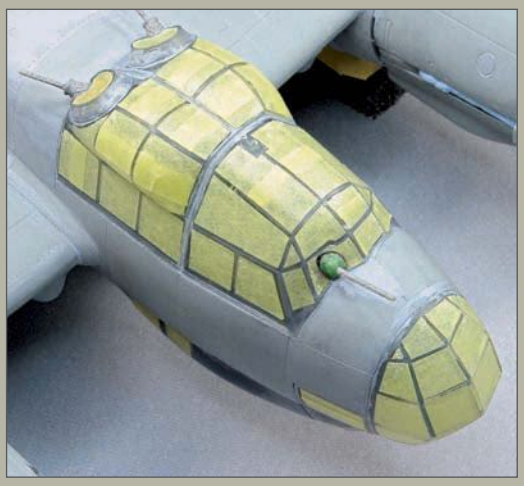
Perhaps the pieces with the worst fit are the tips of the wings, because these come separately from the rest of the assembly.

Masking Transparent Plastic Pieces



The Eduard masking products are not absolutely necessary, but do cut back some of the tedious masking time, and you will avoid any accidents that may take place when cutting masking tape placed on transparent styrene.

Masking can be applied with a pair of tweezers while carefully following the instruction sheet because there are pieces which are pretty much alike.



All transparent styrene parts have been masked. The most important thing now is to make sure that masking is well stuck because we don't want any paint leaks.

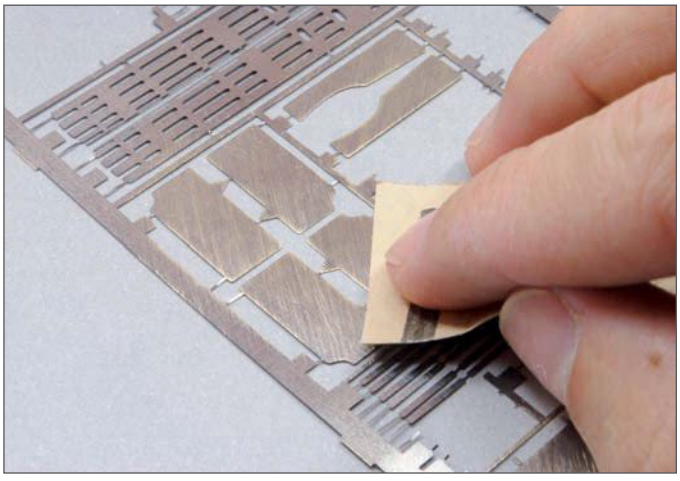
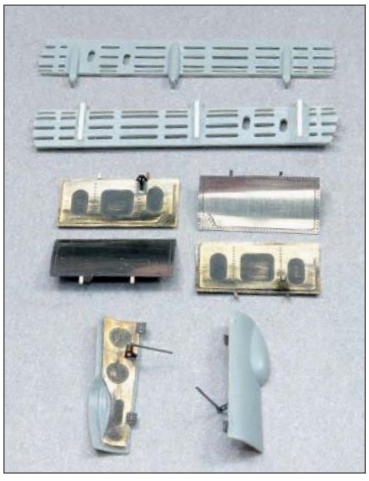


Photo etched parts when sanded will hold better when glued. Sanding areas that will be glued together will always improve binding, regardless of the material to be glued.

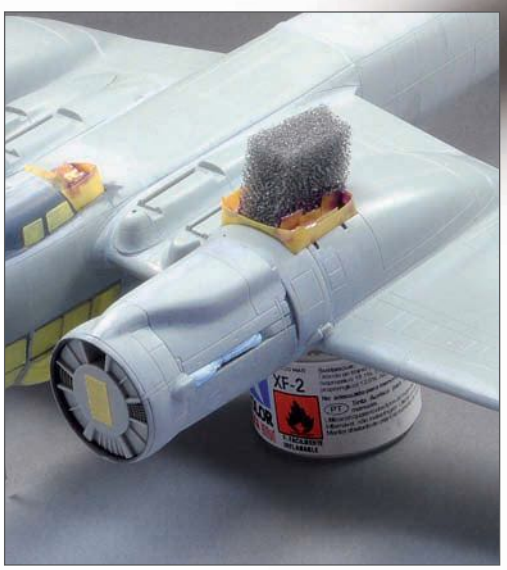


A definite improvement that comes with the Eduard set is the covers for the main landing gear. The ones that come with the kit are way too thick.

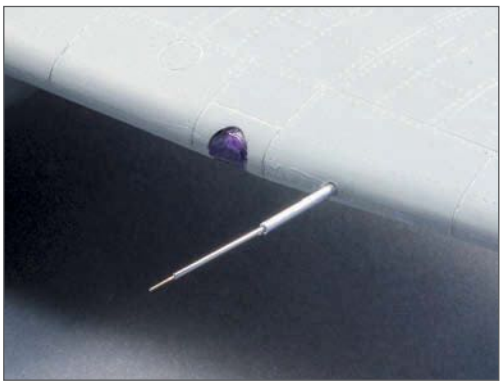
It is convenient to make holes for the weapons in order to remind us of their exact location.

View of the finished wing, which is now ready to be glued to the fuselage. As you can see, every possible improvement, added detail, etc. has been taken care of before gluing it to the main body. This will prevent harming other pieces or misplace the wing unintentionally when gluing it.

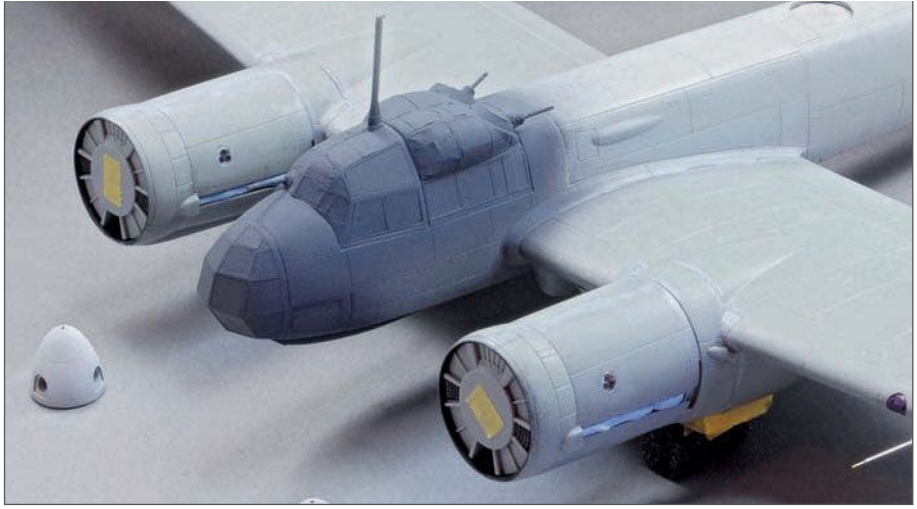
The union between the wings and the fuselage isn't all that good, but this glitch can be hurdled by filling the gap with Evergreen sheet and putty. The line of union between pieces has been marked with a triangular shaped file, which gives us more carving depth than the one we've got on the remaining panels.



In order to avoid friction between the lower surfaces when working I recommend doing a provisional "landing gear". In this case I used some pieces of sponge and a toothpick for the tail.

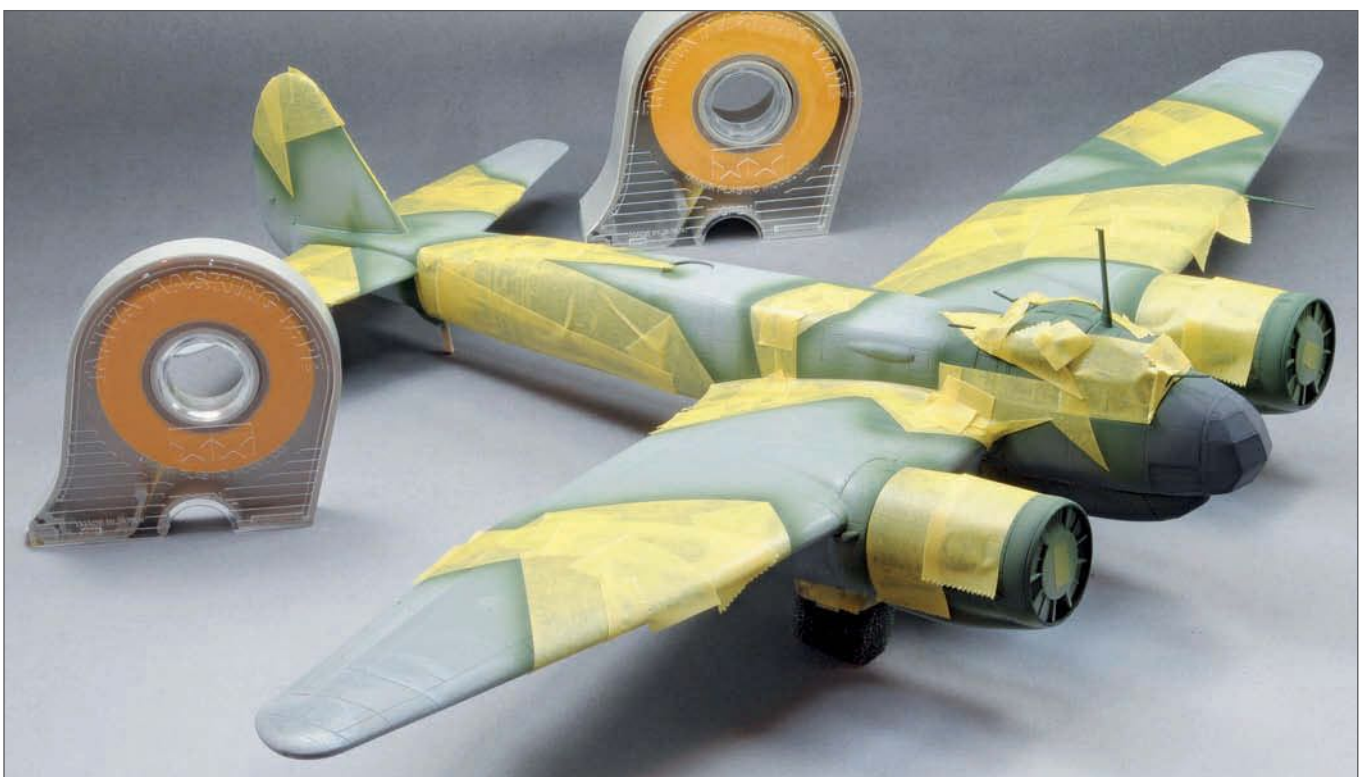


The Pitot tube has been replaced by a new one made of metal. Two hypodermic syringes of different width have been used and a very thin metal rod.



Before working on the camouflage, I painted the white band on the fuselage. I also applied a coat of paint with the gray tone which I used on the cockpit on top of the glass pieces. This way we see some unity between this and the color we see on the inside.

As usual we begin with the lighter color. For this first step it isn't necessary to use masking, but the shapes have been laid out in order to avoid future mistakes. Next we get some highlights by lighting up our base color mixture.



When masking a hard edge, we should airbrush well diluted paint, because if it is too thick we run the risk of getting a bump when removing the masking tape strips.

The second color also has some highlights. This is a very dark color so it is advisable to be careful.

Tamiya masking tape has been used for masking the standard camouflage spots of the German Ju 88 A-4's manufactured in 1942. Many areas will end up being covered with other colors; however you should not bear this in mind because otherwise you'll end up with an excessive color contrast.

Paint Chips: Hairspray technique

There are a number of different techniques for doing paint chips. I have chosen the hairspray technique because I was dealing with a very large surface. Hairspray can be used straight from the can or it can be applied with your airbrush kit. It is always advisable to work in small individual areas because these products dry up pretty fast.

Once you've airbrushed the sand colored spots on top of the hairspray and approximately five minutes later, you peel off a part of the paint. This has been done with hard haired brushes of different sizes soaked in water. Brushes have been chosen depending on the size requirements of the paint chip in question.

We have to stray from symmetry and try to get different forms and sizes for varied effects. It is also interesting to take a look at real pictures and try to ascertain where paint weathers most.

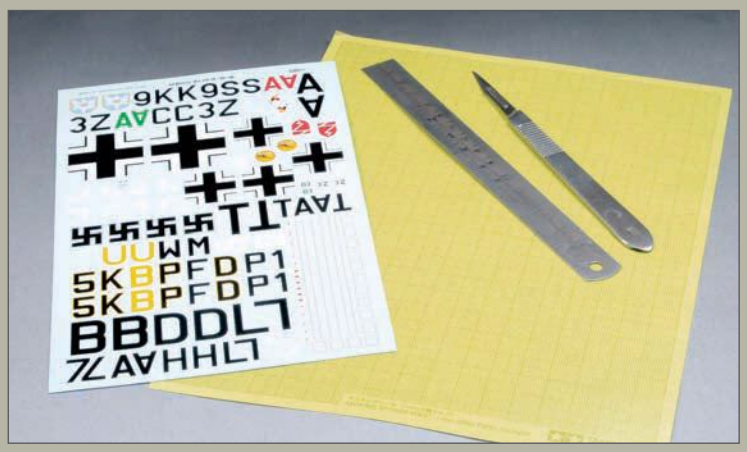
1

1. Before we apply blue paint we have applied another coat of hairspray, because in the previous step we may have covered some areas that we want chipped.
2. Different views of aircraft with finished camouflage pattern. Every camouflage spot has been airbrushed by hand and following the guidelines in color profile in number 14 Vol. II by Kagero Publishing.
3. The lower color hue has been highlighted and shaded switching from base color mixture to white and base to dark blue. Separation between the lower and upper camouflage patterns has been made using Tamiya masking tape.

2

3

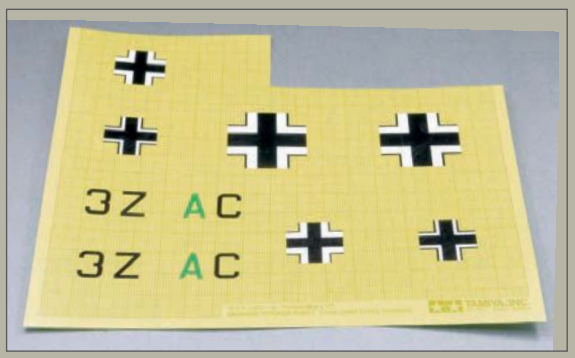
Painting the BalkenKreuz

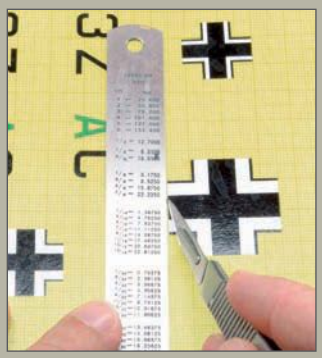


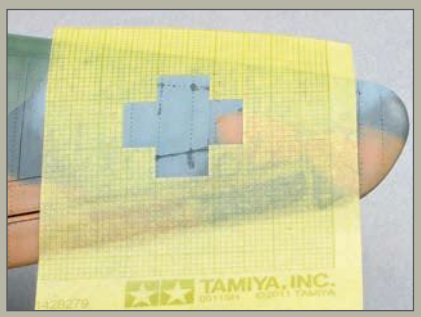
Because the size of the symbols it is recommendable to use masking tape instead of decals. Aims decals have been used and the special Tamiya masking sheet has been used also along with a metal ruler and a new X-acto knife.

The metal ruler has been used as a support when making the necessary cuts to obtain the masking pieces. Obviously this is no good for curved symbols or some letters which should be cut by hand. The trick is to do it slowly not raising the knife to avoid jagged edges.

Decals are stuck to the sheet as if these were on the kit even after the use of the Micro products. Allow for some ample dry up time because we don't want decals to be torn apart when being cut.

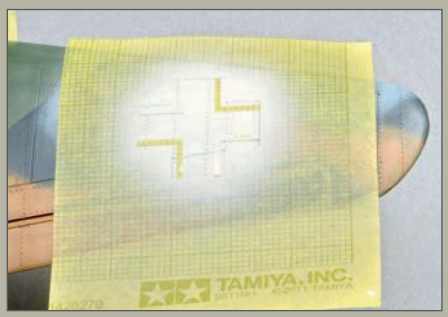






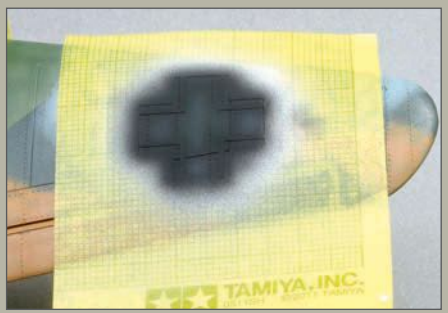
The hardest thing to do when painting with masking is to place it correctly. In order to do this it's convenient to choose a panel which will become a reference and a guide to place the decal.

I began by applying the light color first, in this case white. As we've explained earlier paint should be well diluted.

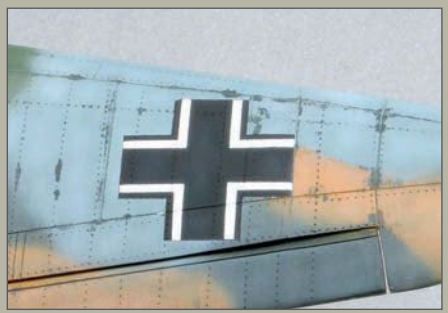


Now we put in place the pieces of masking that give us the white areas. A cotton swab has been used to gently press masking tape and firmly set it in place.

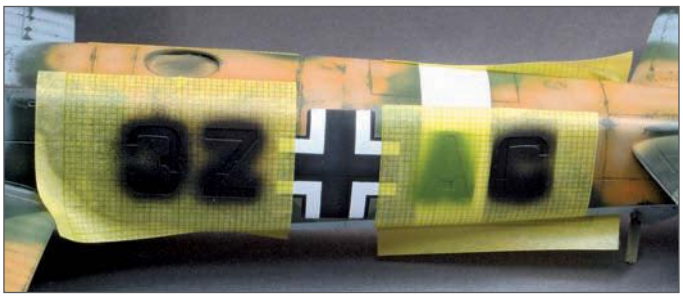
Now we continue with black paint. In order to avoid some nasty surprises we can place a piece of paper along the edge of the masking tape to increase protection from paint leaks and avoid staining the kit.



If the painted surface is large enough, we can also do some highlights. This helps integrate this symbol to the whole kit.



The Balkenkreuz (bar cross) fully finished. In this case weathering of painted symbols will be done later with watercolor pencils. These are easier to control than hairspray used elsewhere on the kit.



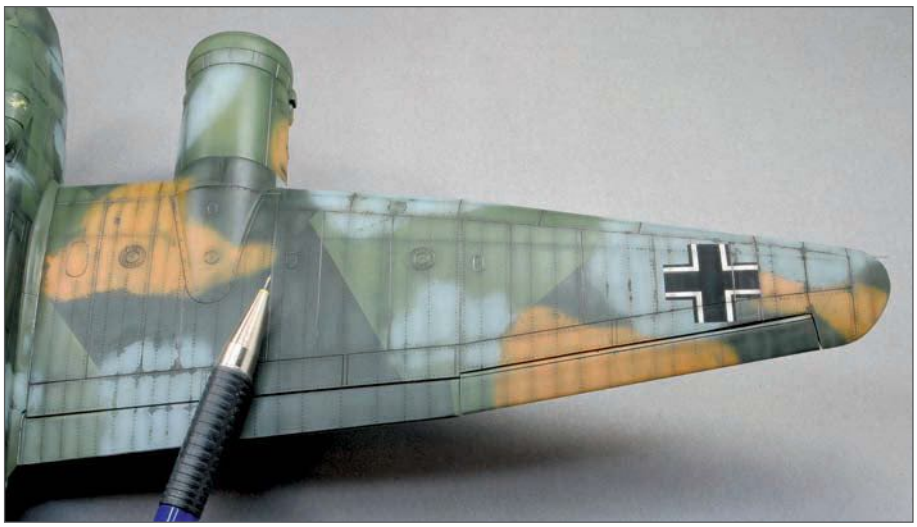
Same process than before but with lettering. Letters have been cut in pairs in order to make sure that both distance and alignment between these is optimal.

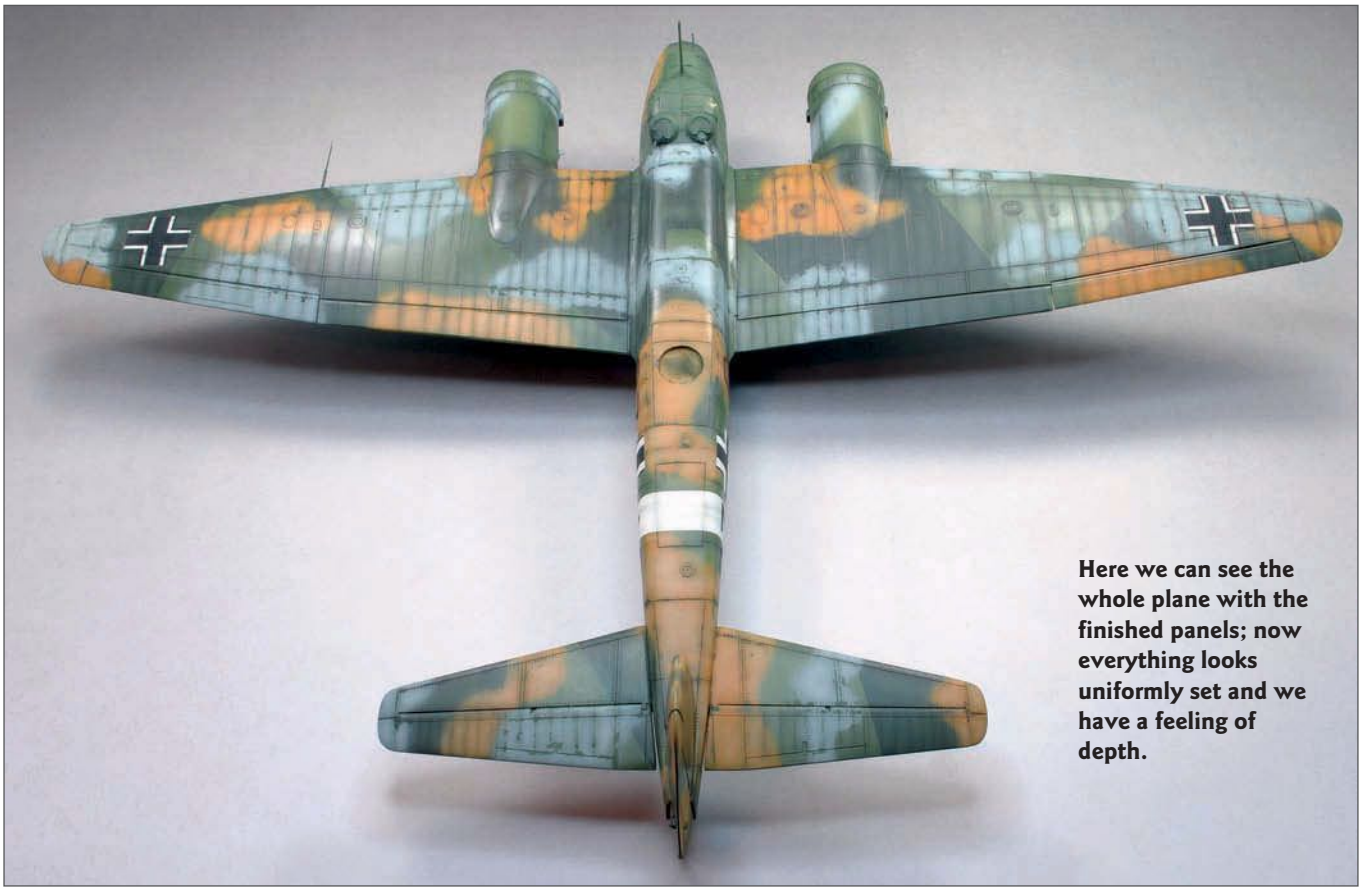
When we remove masking tape we should do this slowly, because if we happen to see any mistakes or areas not properly covered with paint when peeling it, we can stick it back in place knowing that it hasn t moved.

At this point we can say we're done with the camouflage pattern and most airbrush work.

In order to mark the panel division we have used a 0,3mm lead mechanical pencil constantly sharpened in order to get the thinnest lines possible.

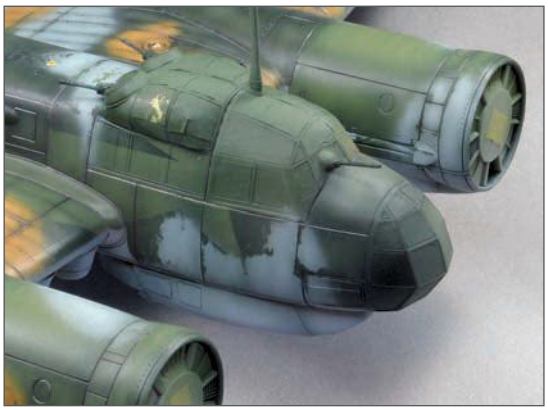
In this picture we can see that pencil lines can be quite shiny, but we shouldn't worry too much about it because when we're done with every step it will end up matte.



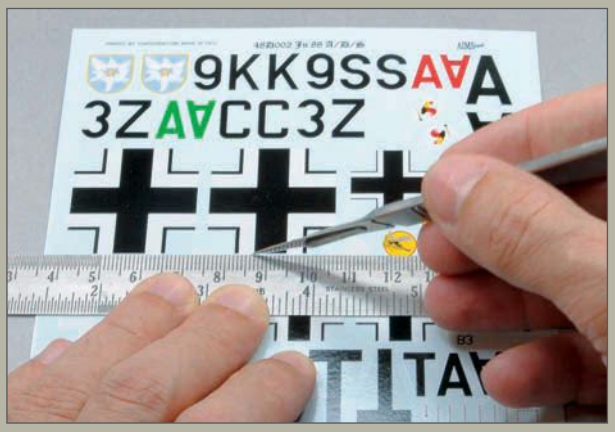


Here we can see the whole plane with the finished panels; now everything looks uniformly set and we have a feeling of depth.

It is recommendable to do a paint check before fully removing any masking in order to make sure that we don't need to make any further corrections.



Applying Decals



We cut away the decals that we're going to use cutting away the transparent edge around the image.

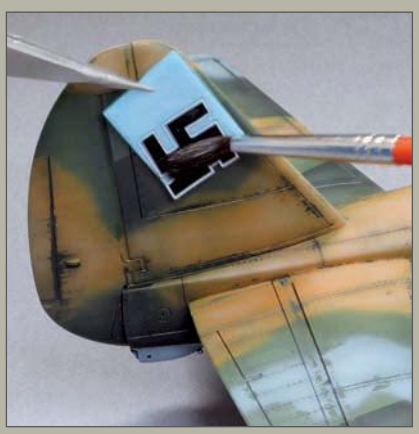
The decal is then dipped in lukewarm water with a few drops of vinegar to soften it. It is important not to touch the decal with your hands or tweezers once it's wet.

When the decal starts to come off from the piece of paper, make sure that leftover transparent film is properly discarded because sometimes it makes its way to the kit.

The Micro Set product has been applied with a clean brush over the decal in order to fully impregnate it.

The only decals used on the kit are the swastikas on both sides of the tail. Before you apply these it is convenient to gloss varnish the area.

Using the same brush employed on the previous process, we apply the Micro Set on the surface of the kit where the decal goes.



Decals can easily be ruined by folding, so it is convenient to drag it from the piece of paper where it's sitting to the surface of the kit using a clean and smooth brush.

Leftover Micro Set liquid has been removed with a cotton swab that has helped us both dry the surface and exert a light pressure to adapt decals in place.

Now we apply Micro Sol with another clean and smooth brush. We allow the product to dry up on its own and we're done with decals.

Oil Paint Work

1

1. The best way to work with oils is to place a small amount of paint on a non porous surface. A disposable plastic dish does the work in this example. Some hobbyists like first to remove excess oil from paint, however in this case I wanted oily paint for easy mixing.

2

2. Before we apply oil paint you have to soak the working area with Humbrol enamel thinner, and this way it will be easier to "melt" paint on the surface.

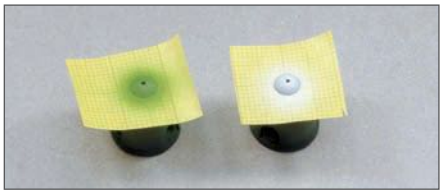
3. Once we have chosen the oil paint references, we apply small random amounts of paint on the kit's surface with a thin brush. Oil paint hues should be within the color range of the camouflage colors employed on the kit.

3

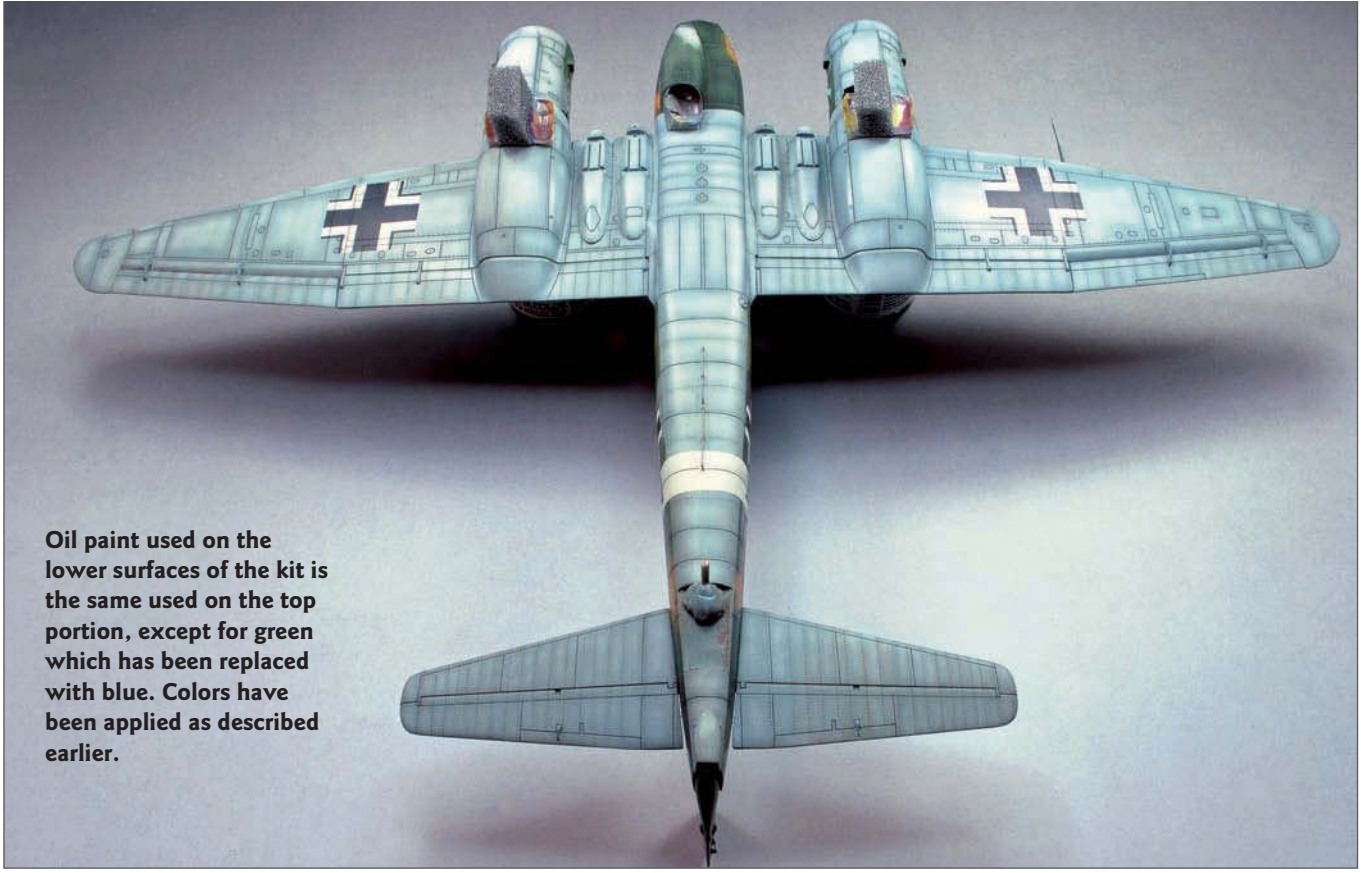
4. With a flat tipped brush we melt oil paint in a back and forth brush motion for the horizontal surfaces, and an up and down motion for the vertical surfaces.

4

The propellers' hub has been painted light green, which was done with masking created with a cutting circle tracer. White paint has been applied and then green.



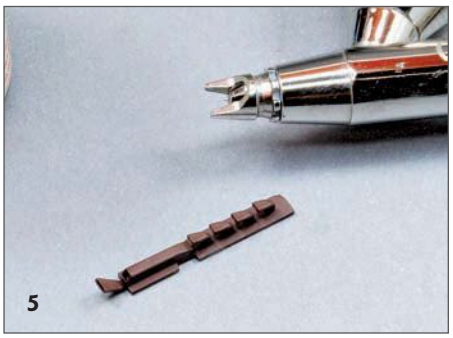
Propellers have been painted with Tamiya's XF27 and have also been properly highlighted and shaded. Black paint strokes have also been made closely following the cutting edge of the blades.

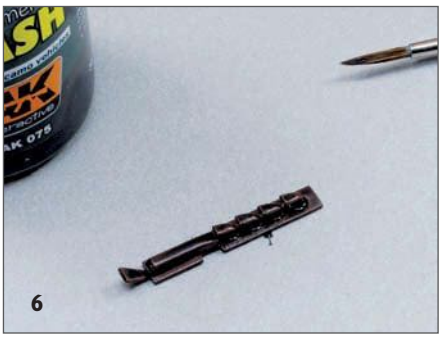


Oil paint used on the lower surfaces of the kit is the same used on the top portion, except for green which has been replaced with blue. Colors have been applied as described earlier.

Now we'll apply some matt varnish. In this occasion we have employed Marabu varnish. It has been used in a proportion of 1 to 3 parts thinner. With varnish there's a pretty important recommendation to follow: shake or stir well before use.

Tweezers are used to remove masking, but make sure not to scratch the "glass" parts.





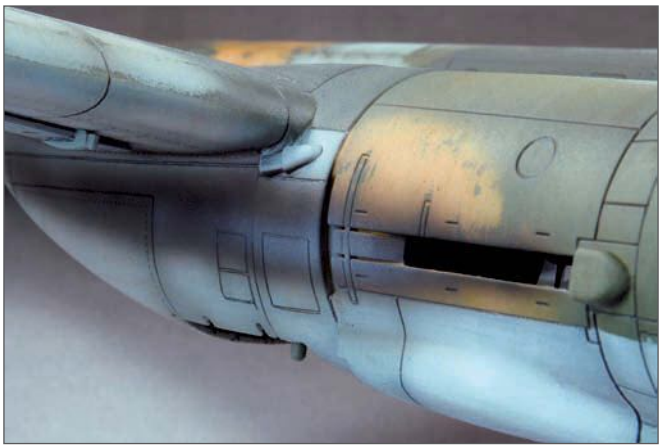
1. The base color for the exhausts has been airbrushed in a mixture which is half thinner and half paint Red brown XF-64 (Tamiya).

2. The AK Interactive paint washes are a very useful tool for weathering. In this case only a couple of coats have been applied (ref. AK 075). Enough drying time has been allowed between coats.

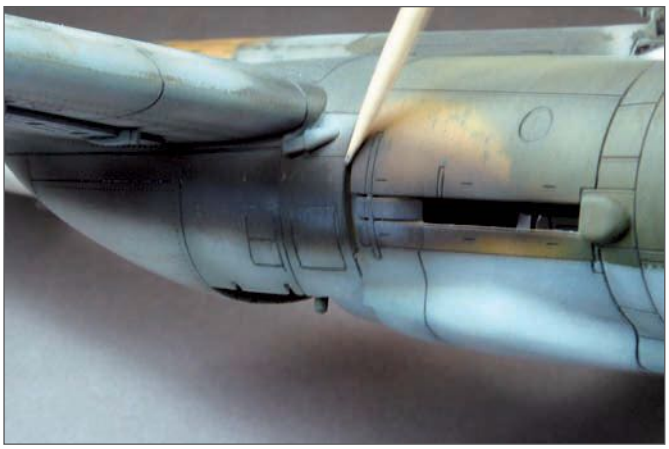
3. Applying Leather 62 Humbrol enamel using the dry brush technique we obtained some highlights. It is important to allow enough drying time for the washes we've done earlier, because otherwise we can ruin it.

4. The rust effect is obtained with the pigment Light Rust P024 (MIG Productions). In this example we've used it diluted in water.

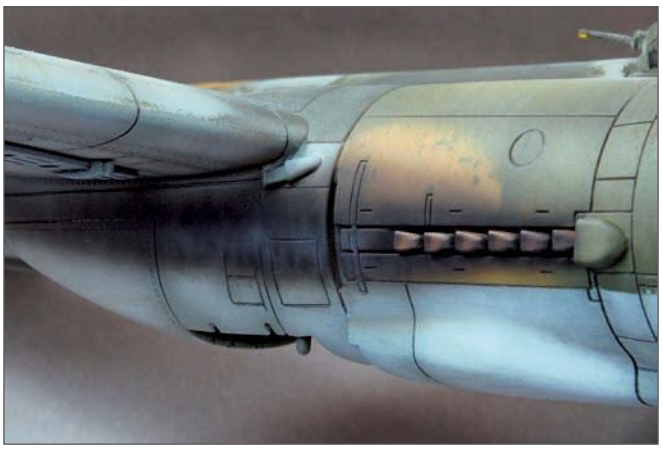
This is the first color used to convey the stain produced by gas. It was done by mixing four parts of XF10 and one of XF1 90% diluted.



On the center of the spot we paint a smaller one using light gray, thinned out like we've done earlier.

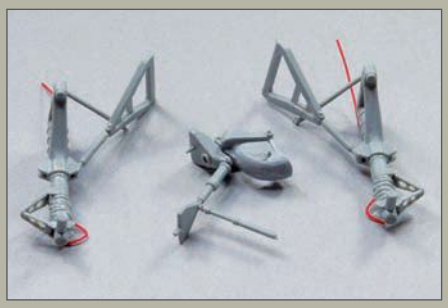


We scratch the surface with a toothpick soaked on Tamiya thinner in order to remove some paint off. It isn't necessary to press too hard, just do it over as many times as it takes.

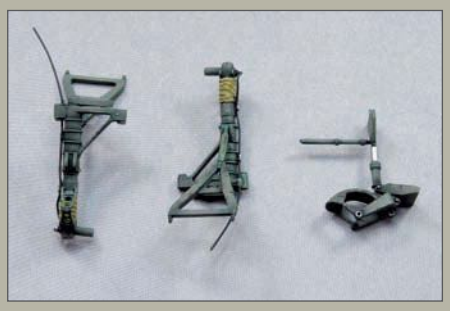


This effect is completed by going back to a diluted version of the initial base paint.

Landing Gear



The landing gear has a lot of detail so we've just basically only added the brake cable which is actually a computer cable.



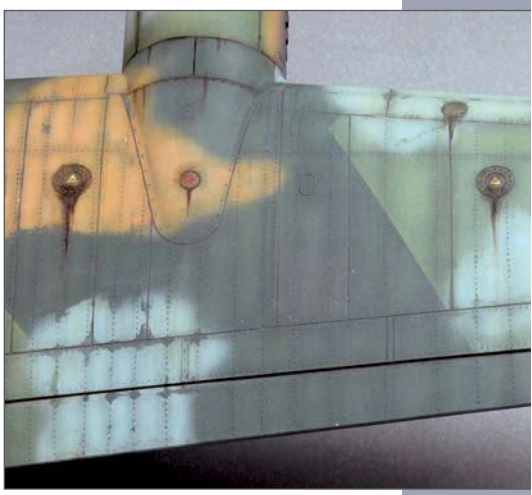
The landing gear has been painted with Tamiya's RLM XF22 gray. The remaining effects on these have been described earlier.

The True Detail wheels are much better than those that come with the kit. These are readied by cutting away the resin support and enlarging the hole where the wheel axis goes.

The tire has been painted gloss black. We didn't do any effects here because pigments will later on cover the wheel.

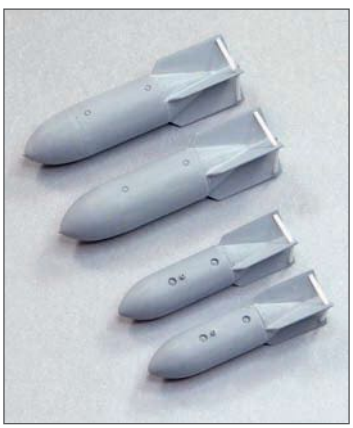
Once the tire has been covered we airbrushed a coat of NATO XF69. Then we've got some highlights with XF53, especially on the surface of the wheel that makes contact with the ground. Shades are made with matt black.

Dry color pigments are finally applied to the wheels. Wheel surface isn't obviously too large, so the best thing you can do to control pigments while they're being applied is to trim the hairs of a thin brush in half and apply small amounts of pigment.



A mixture of Marabu gloss varnish and Van Dyck COLOR PARDO oyl paint is used to paint hydraulic fluid residue on the exhausts.

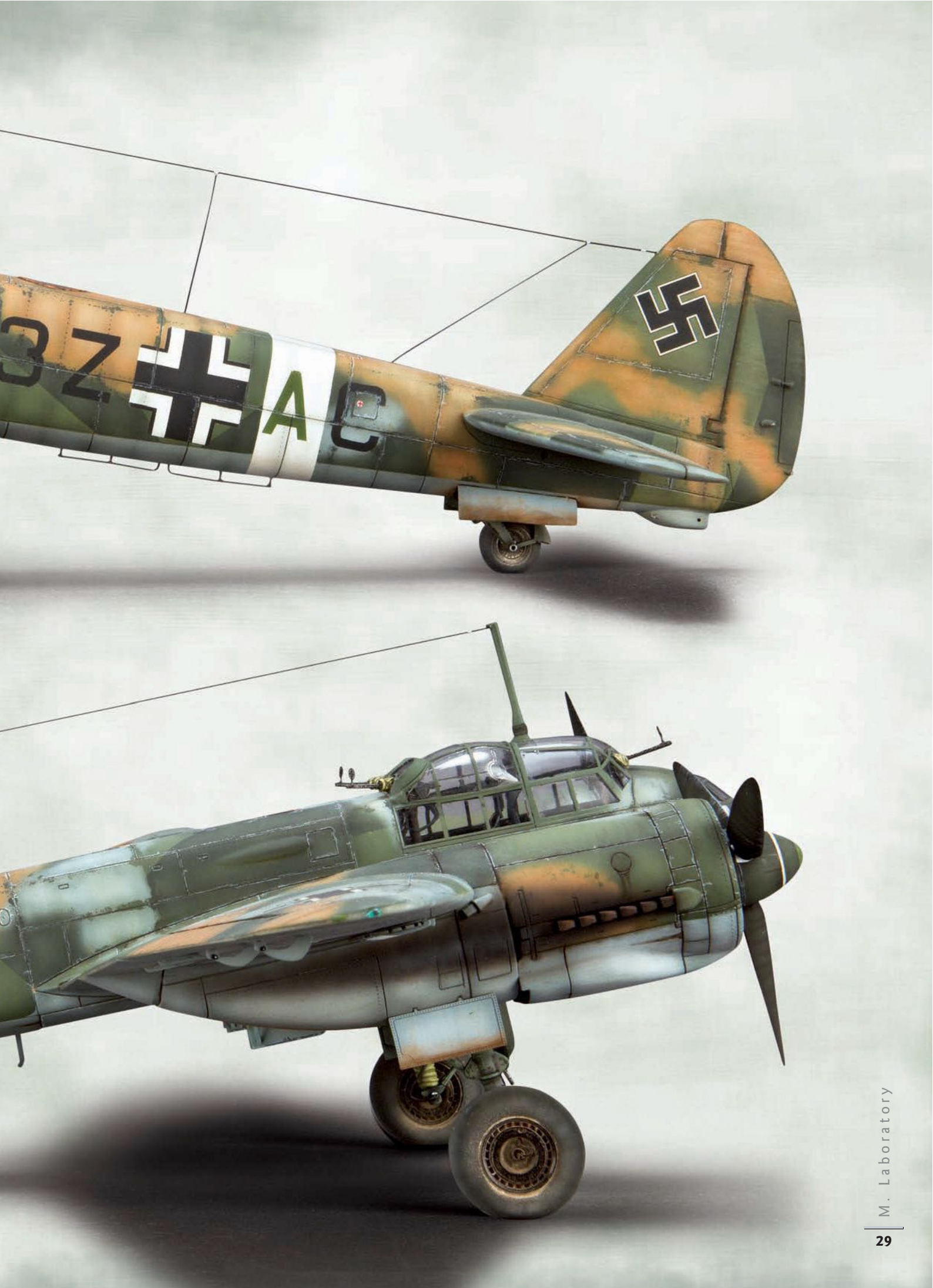
All the light colored paint chips have been created with water color pencils. Only superficial paint scratches have been done with these.

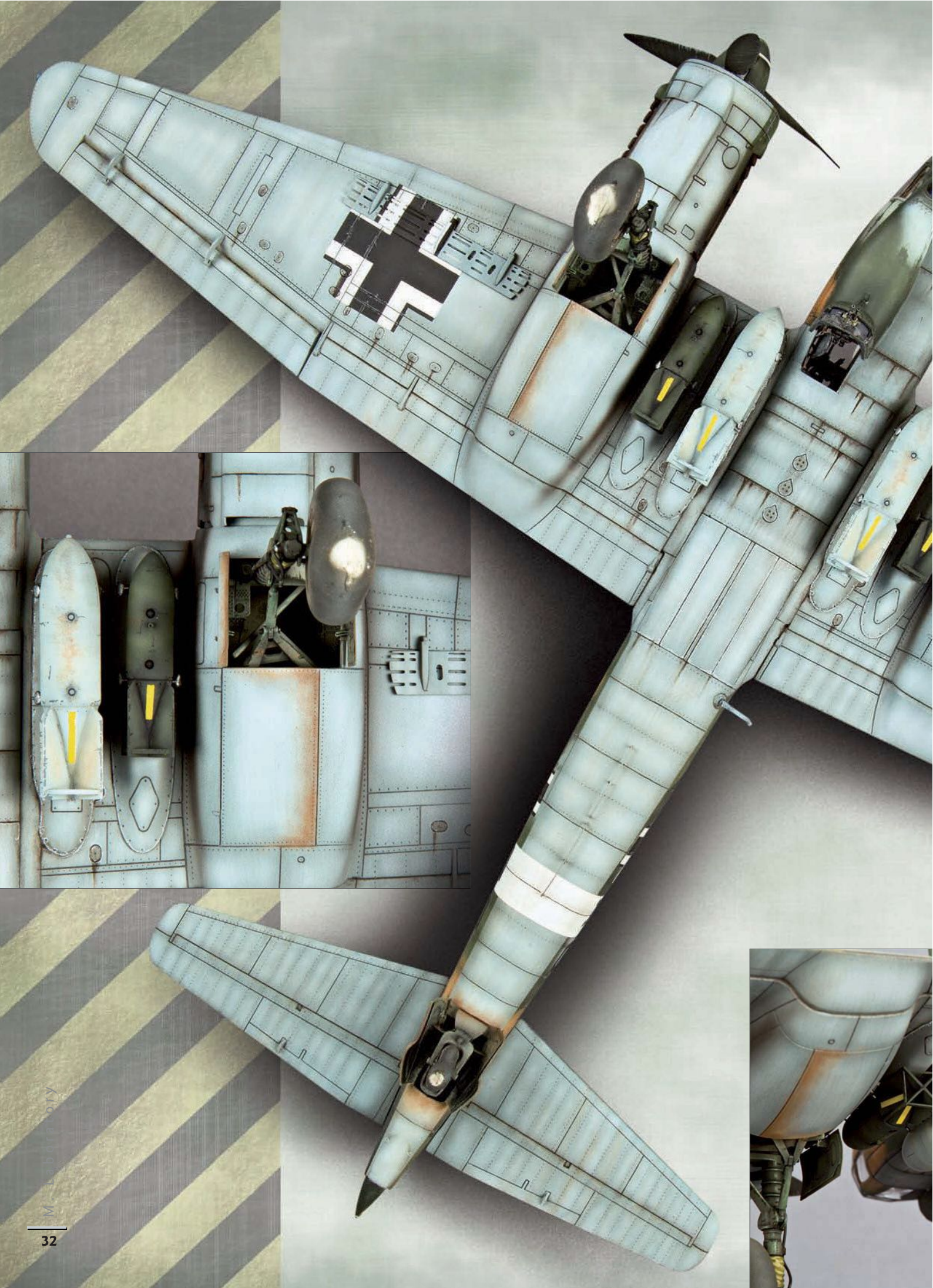


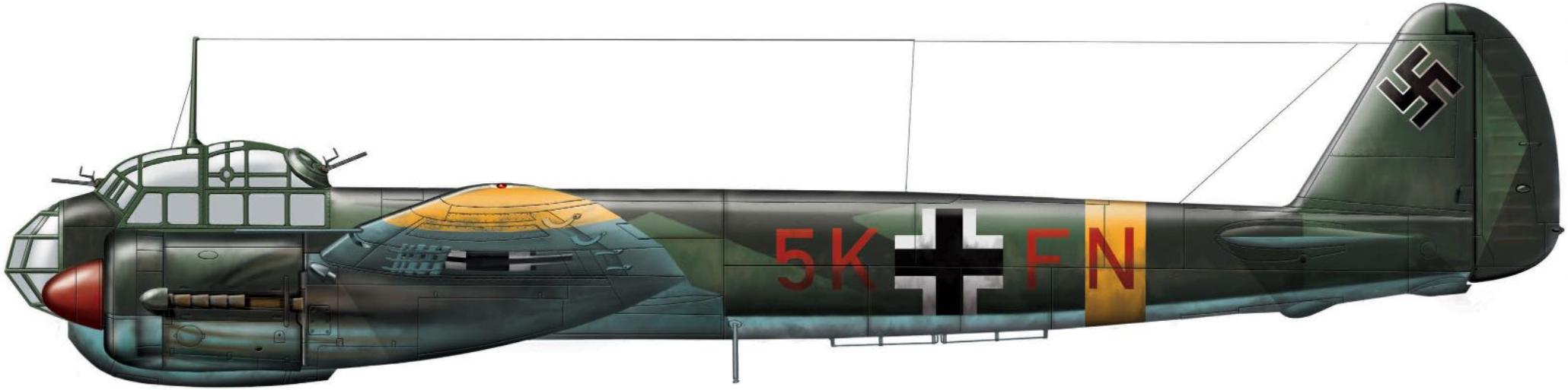
The 250 and 500kg SC bombs are included on the kit, and these have only have some putty and some heavy sand work. Thinner Evergreen rods have been used to solve scale problems.

After having studied some period pictures and with the immense help of my friend Luis Antonio Reyes, I actually came to the conclusion that these bombs were painted in different color patterns. That's why I chose a combination of different colors. All bombs had a yellow band painted on the rear.

3Z
AC

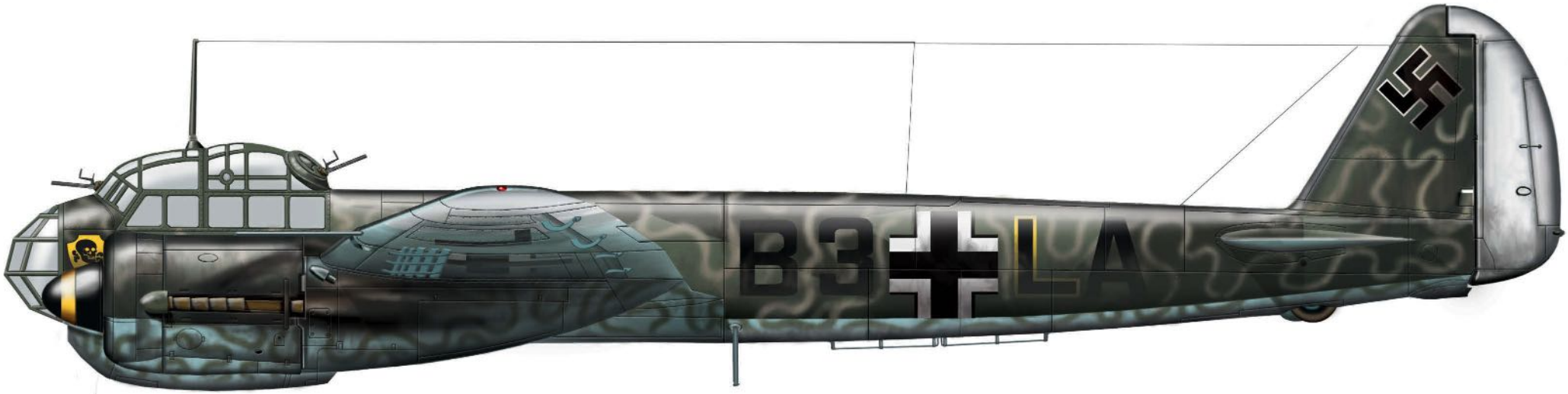

3Z
AC





Junkers Ju 88A-5 from the 5./KG 3 during the invasion of the U.S.S.R. in 1941. The color pattern is the usual one (70/71/65), in this case however the plane has a band across the rear of the fuselage and the tips of the wings are painted yellow.

Junkers Ju 88A-5 from the III/KG 54 "Totenkopf" in Italy, 1943. The color pattern is the one employed in the Mediterranean theater of operations; yellow sand (79 Sandgelb) and olive green (80 Olivgrün) for the top surfaces and light blue (78 Hellblau) for the lower ones.



During their permanence in Italy in 1942, this Junkers Ju 88A-4 from the Geschwader Stab from the 54 Totenkopf was decorated with wavy lines called Wellwnmüster.

Junkers Ju 88A-5 from the 5 Staffel of the Aufklärungsgruppe 123 when operating in the Russian front during the winter of 1941/42. White camouflage paint has been painted on top of the original pattern.

Introduction

When we're dealing with a well known plane such as the Ju 88 the possibilities available on the market in terms of model kits improvement sets and decals are innumerable. Here we will review the main ones and the easiest to get for any given hobbyist even if there is a final section with the lesser known brands that should also be taken into consideration.

1/32

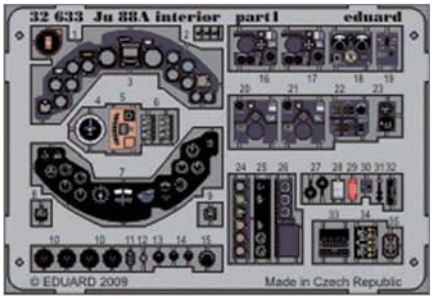
REVELL 1/32 - Junkers Ju 88A-1 - Ref.04728

This German brand has recently surprised us with this outstanding mold portraying the A-1 version. It comes in good quality gray styrene which is easy to work with. It has 281 pieces; the size is therefore considerable, getting as a result a kit which is pretty hard to assemble and paint. One of the designs featured in the decal sheet is from the KG 54 and the other one is based in Norway during the battle of Britain. The instruction leaflet is 16 pages and it's real easy to follow.

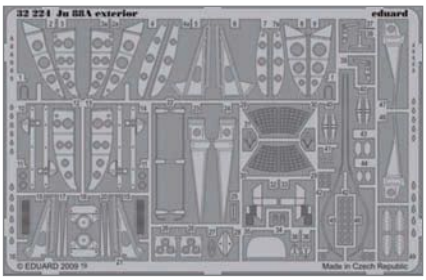
CMK 5026

CMK 5025

EDUARD 32633



EDUARD 32224

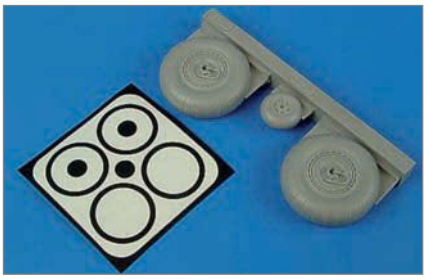


EDUARD JX 084

MASTER MODEL 32039

QUICKBOOST 32059

AIRES 2086



Techmod 32038 / Techmod 32039

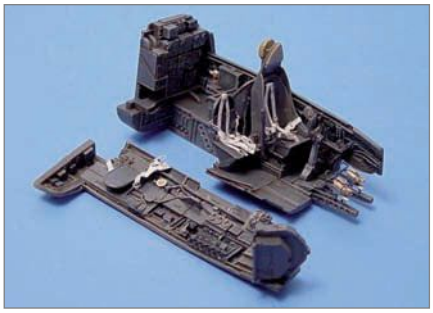
1/48

DRAGON 1/48 - Junkers Ju 88

Without a doubt this is the best offering at 1:48 scale. The kit is manufactured by the Asian brand Dragon and under this brand name or under other sister companies such as Shanghai Dragon or Cyberhobby. The mother mold is the exact same one for all the available versions, changing only the specific pieces for each model. Fitting is quite good and the quality of the plastic is pretty good as well. Transparent styrene parts are worth mentioning, because these have been perfectly well executed. Detailing is reasonable but perhaps a little below current standards. The "soft" spots on these kits are two: first the instruction sheet is not that clear, and second, the decal sheet is pretty mediocre and does not have many designs.

VERLINDEN 1485

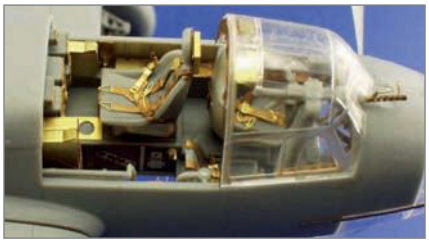
AIRES 4052



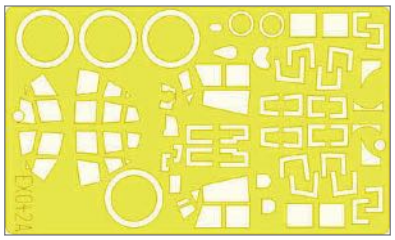
AIRES 4138

EDUARD 48498

EDUARD 49285



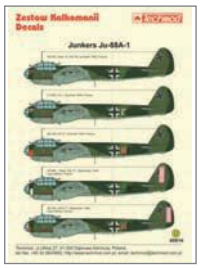
EDUARD EX 042



MASTER MODEL 48027

QUICKBOOST 48218 / QUICKBOOST 48265

AIMS 48D002 / TECHMOD 48814



AIRDOC 48012

1/72

Revell 1/72 - Junkers Ju 88A-4 bomber - Ref. 04672

The quality of this mold is excellent. It has 191 gray styrene parts. The decals in the box allow you to choose between two versions. The pieces offered allow you to choose between different seats and the cockpit can be left either open or closed.

Italeri 1/72 - Junkers Ju 88A-4 - Ref. 1287

A bit inferior in terms of quality when compared with the Revell release, it has however a magnificent decal sheet that allows you to choose between different German designs and French ones as well.

Hasegawa 1/72 - Junkers Ju88

This Japanese brand has the usual quality standards, and also has the advantage of having most versions of the Ju88. As usual, the styrene employed is excellent, it fits to perfection and the instruction sheet is very concise. It is also worth noting that detailing is excellent, so if you want to explore that avenue further you could do it with excellent results. Perhaps the only setback would be the excessive thickness of the decal sheets.

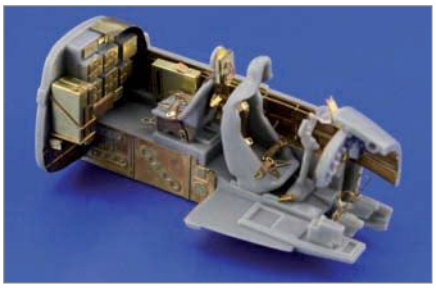
Airfix 1/72 - Junkers Ju88A-4

Amongst all the analyzed versions, the Airfix kit is perhaps the one with the lower quality standards. This kit does however have a very interesting retail price. It does not have the level of detail that its competitors have especially in places such as the cockpit, landing gear and landing gear pits.

AIRES 7138 / AIRES 7073

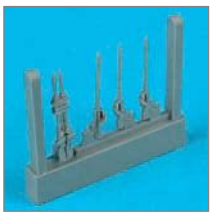
EDUARD 72459

EDUARD 73275



PAVLA 72048

QUICKBOOST 72054 / QUICKBOOST 72138



AUTHENTIC DECALS 7234 / BEGEMOT 7210

ACCESORIES

INTERIORS

Aires:
These are the best resin sets available today for our cockpits, having great detail and perfect fit. The set does also include a photo etched and an acetate sheet, quite useful when doing the instrument panels or consoles.
CMK:
Not as good as the Aires set, but it covers many needs that other manufacturers simply did not take into account, as it is the case with this version of the kit as manufactured by Revell. With this brand it is customary having to invest some time removing mold residue which is quite intense in this case.
Verlinden:
The references of this brand are perhaps the ones with the lesser quality, mostly because some of these are pretty old already. The photo etched pieces included are also inferior to the ones we've reviewed previously. However, the resin material employed is pretty good and the fitting is pretty good as well.
Eduard:
The photo etched pieces from this Czech brand help us improve detailing on the kits' cockpit. These are easy to come by and are affordable. The strong point in these is the combination between the photo etched and acetate sheets created to improve the dials on the console.

LANDING GEAR PITS

Aires:
This is the only brand that manufactures this feature only in resin and then only in the 1/48 scale. These are included in the reference along with the motors.
Eduard:
This brand usually includes pieces to improve those of the kit or replacing them altogether. These are great help when detailing these highly detailed areas.

EXTERIOR DETAILING SETS

CMK:
We believe that the Czech brand offers the best resin option for detailing the outside of the Ju88. We have several references that reproduce the fuel tanks, control areas, weapon fastenings, etc. This kind of set is excellent for detailing opened panels that would otherwise have to remain shut.
Eduard:
Eduard has specific photo etched sheets for the outside of the plane in all three scales. These are very useful when recreating real thin pieces that the kit does not include or includes; but out of proportion. You have to bear in mind that we are not interested in applying everything, because these sheets include pieces which are not flat in real life.
The masking sheets of this manufacturer deserve special mention. These are made in pretty much the same material employed in manufacturing Tamiya's masking tape. These are specially useful for the Ju88 and will save us a lot of time.

OTHER DETAILS

Aires:
Other than what we've said before, this manufacturer does also have references in all the three scales which will help us get other pieces which are also important. Such is the case of the 1/32 scale wheels and the references of the Mistel in 1/72. The quality standards of all these are pretty high.
CMK:
As we've seen earlier, CMK has some sets to improve small pieces and in some instances we can find these on references of greater size.
FALCON:
This manufacturer sells transparent vacuformed domes in 1/72 and 1/48 scales. These pieces can be useful when the original ones have suffered some kind of harm.
MASTER MODEL
This Polish brand manufactures metal rods. Other than machine gun shafts the brand offers some references in all scales specially recommended for those that want to portray the nocturnal versions of the Ju88. We are thinking specifically about the FuG 220 Lichtenstein SN 2 German radar.
Quickboost:
This brand manufactures a broad resin piece catalogue range with pieces to improve the Ju88 in all three scales. The main advantage offered by the brand is the simplicity of the pieces that can stand comparison with the best from other manufacturers.
True Detail:
Known for their resin wheel sets, this brand also has references in 1/48 and 1/72 for this plane with the usual quality standards.

DECALS

Authentic Decals:
The brand offers decal sheets for the main versions of the Ju88 in 1/72 scale. These have a medium quality, but they have some original designs in these.
Aims Decals:
In this special we've used the decals offered by this brand. Theirs' are similar to those offered by other makers, but it broadens the offer with different versions in 1/48 scale.
Airdoc:
Also available in both scales, this German manufacturer offers a scope of designs that ranges from the usual ones to the lesser known ones. Overall quality is also superior to that offered by other brands.
Begemot:
The references available are in the 1/72 scale and are not of a high quality, but their wide range of designs is perhaps the best.
Techmod:
This brand manufactures decals for all three scales, but the designs offered are very similar and not very original.

REVELL 1/32 - Junkers Ju 88A-1 - Ref.04728

Aims - 3202- Junkers Ju 88A-1 cockpit instrument details
Aires - 2086 - Junkers Ju 88A-1 wheels & paint masks
CMK - 5024 - Junkers Ju 88A Bulkhead with radio sets
CMK - 5025 - Junkers Ju 88A exterior set
CMK - 5026 - Junkers Ju 88A interior
CMK - 5027 - Junkers Ju 88C-2 (conversion)
CMK - 5028 - Junkers Ju 88A Wing fuel tanks
CMK - 5046 - Junkers Ju 88A-1 Wings racks
CMK - 5065 - German bomb SC 250kg
CMK - 32105 - Junkers Ju 88A seats
CMK - 32108 - Junkers Ju 88A Radio set
CMK - 32109 - Junkers Ju 88A Control Column
Eduard - 32224 - Junkers Ju 88A exterior
Eduard - 32632 - Junkers Ju 88A seat belts
Eduard - 32633 - Junkers Ju 88A interior (self adhesive).
Eduard - 32634 - Junkers Ju 88A placards
Eduard - JX084 - Junkers Ju 88A paint masks
G-Factor- 3224 - Junkers Ju 88 Landing Gear
Master - 32002 - German aircraft machine gun MG.17 barrels
Master - 32039 - German radar FuG 220 Lichtenstein SN-2
Quickboost - 32056 - Junkers Ju 88A-1 ammunition boxes
Quickboost - 32059 - Junkers Ju 88A-1 exhaust
Scale Aircraft Conversions - 32026 - Junkers Ju 88A-1 Landing Gear
Techmod - 32038 - Junkers Ju 88A-1 (part. 1)
Techmod - 32039 - Junkers Ju 88A-1 (part. 2)

CIBERHOBBY/DRAGON/REVELL 1/48 - Ju 88A-4

Aims - 4801 - Junkers Ju 88-G
Aims - 4802 - Junkers Ju 88A/D/S
Aims - 4803 - Junkers Ju 88 National insignia
Aims - 4804 - Junkers Ju 88C-6 (plus 1 x Junkers Ju 88G-1 option)
Aires - 4005 - Junkers Jumo 213 suitable for Focke-Wulf Fw 190D, Ju 88G, Focke-Wulf Ta 152H
Aires - 4006 - Junkers Jumo 211 with exhaust and etched parts suitable Junkers Ju 87, Heinkel He 111, Avia S-199, Junkers Ju 88
Aires - 4052 - Junkers Ju 88A-4 cockpit set
Aires - 4138 - Junkers Ju 88A-4 details
Airdoc - 4809 - Junkers Ju 88A Part 1
Airdoc - 4810 - Junkers Ju 88A Part 2
Airdoc - 4811 - Junkers Ju 88A Part 3
Airdoc - 4812 - Junkers Ju 88A Part 4
CMK - 4009 - Junkers Ju 88A-4 interior
CMK - 4246 - Junkers Ju 88A/Ju 88C/Ju 88G - Wing fuel tanks
CMK - 4247 - Junkers Ju 88A/Ju 88C/Ju 88G - exterior set
CMK - 4248 - Junkers Ju 88A - Wing rack for torpedo LTF 5b
CMK - 4249 - Junkers Ju 88A Wings racks
CMK - 4250 - Junkers Ju 88A - Bulkhead with radio sets for B-stand position with two MG 81
CMK - 4251 - Junkers Ju 88A Interior set- for B-stand position with two MG 81
CMK - 4254 - Junkers Ju 88A - Bulkhead with radio sets for MG.15 position
CMK - 48137 - Junkers Ju 88A/Ju 88C/Ju 88G Seats
Eduard - 48498 - Junkers Ju 88A-4 exterior
Eduard - 49285 - Junkers Ju 88A-4 interior
Eduard - EX042 - Junkers Ju 88A-4
Falcon - 1448 - Luftwaffe WWII. Junkers Ju 88A-4
Master - 48027 - German radar FuG 220 Lichtenstein SN-2
Master - 48055 - German aircraft machine gun MG 15 - turned barrels and etched sightsb
Quickboost - 48218 - Junkers Ju 88A-4 exhaust
Quickboost - 48265 - Junkers Ju 88 VS-11 Propeller w/tool
Scale Aircraft - 48105 - Junkers Ju 88 Landing Gear
True Detail - 48029 - Junkers Ju 88A4/G6 and Junkers Ju 188 Two (2) main & one (1) nose wheel. Smooth Tread.
Techmod - 48031 - Junkers Ju 88A (1)
Techmod - 48032 - Junkers Ju 88A (2)
Verlinden - 1485 - Junkers Ju 88 superdetail set

ITALERI 1/72 - Junkers Ju 88A-4 - ref. 1287

Authentic Decals - 7234 - Junkers Ju 88A-4
Airwaves - 72077 - Junkers Ju 88A-4
Aires - 7138 - Junkers Ju 88A-4 cockpit set
Airdoc - 7209 - Junkers Ju 88A Part 1
Airdoc - 7210 - Junkers Ju 88A Part 2
Airdoc - 7211 - Junkers Ju 88A Part 3
Airdoc - 7212 - Junkers Ju 88A Part 4
Begemot - 7210 - Junkers Ju 88A-4 Part 1
Begemot - 7224 - Junkers Ju 88A-4 Part 2
Techmod - 72111 - Junkers Ju 88A (1)
Techmod - 72139 - Junkers Ju 88A (2)

HASEGAWA 1/72 - Junkers Ju 88G-6 Nachtjager - Ref. E32

Authentic Decals - 7226 - Junkers Ju 88G-6
Eduard - 73361 - Ju 88G-6 Night Fighter
Eduard - CX183 - Ju 88G paint mask
Master - 72016 - German radar FuG 220 Lichtenstein SN-2
Pavla - 72048 - Main wheels for Junkers Ju 88
Quickboost - 72095 - Junkers Ju 88G gun barrels
Quickboost - 72138 - Junkers Ju 88 undercarriage covers
Quickboost - 72190 - Junkers Ju 88G-6 VS 11 wooden propeller
Quickboost - 72287 - Junkers Ju 88G-6/Junkers Ju 188A engine intake

Model Laboratory

Junkers Ju 88 A-4, Gerbini (Sicilia)1942

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